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Classification of SOCIETY
Bearded Iris JANUARY, 1958

THE AMERICAN IRIS SOCIETY

A non-profit institution incorporated Feb. 2, 1927, in the County of Philadelphia, State of Pennsylvania. By the terms of the Charter, the Corporation has no stockholders and exists for the sole purpose of promoting the culture and improvement of the IRIS.

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The President's Corner

ANOTHER YEAR in the history of the American Iris Society has been completed; the Board of Directors has met and re-elected the same officers for the year 1958. May I say that your present officers appreciate very much the confidence placed in them and will continue to serve the Society to the best of their ability.

Two Directors of long standing submitted their resignations to the Board at the fall meeting. Mr. Will Moffat of Hamilton, Ontario and Mr. Don Waters of Elmore, Ohio asked to be replaced as members of the Board of Directors because of illness in their families. It is a great loss to the Society to have these men retire. They have given many hours of service to the Society and we shall always be in their debt.

The Board of Directors appointed Mr. Albert Lauck of Toledo, Ohio and Dr. John R. Durrance of Denver, Colorado to fill the unexpired terms of Mr. Waters and Mr. Moffat. We are looking forward to fine leadership from these men.

For a good many years there has been concern on the part of some of us as to the method of choosing the Regional Vice-Presidents of the Society. Article six, section five of the newly adopted By-Laws says: "The Board of Directors from time to time may designate and constitute certain geographical sections as official Regions, and the Board of Directors shall appoint a Regional Vice-President to preside over each of such official regions."

It has been a general practice for the retiring RVP to recommend to the Board of Directors his successor. In many instances the Board then made the appointment because little information was available about other personalities in the Region.

This form of securing leadership has not always proven to be the best. As a result, your Board has become more aware of the problems within the various regions and is attempting to exert more influence in the choice of the Regional Vice-President.

By this we do not mean that the Board is attempting to dictate who the Regional Vice-President shall be. We are merely urging the membership within each Region to be more concerned as to who its leader will be. It is our hope that in the future some method of choosing an RVP will be established in each Region whereby those who are working closely with the RVP will have an opportunity to express their desire as to whom that leadership shall be awarded.

Frontispiece: White Swirl, a new Siberian introduction from former Bulletin editor, Frederick W. Cassebeer, is a large milk-white beardless iris with just a touch of yellow at the haft. Extremely floriferous, it has distinctive, broad, ovate standards and horizontally flaring falls that are wide-spreading and bouffant in effect. Its 40-inch stalks should make this iris invaluable for "back-of-the-border" landscaping.

In two Regions this year the new Vice-President was chosen by consultation between area Chairmen and the retiring RVP. In another Region this method was combined with another to allow the area chairmen and the judges to choose the RVP by secret ballot. The person thus chosen was recommended to the Board by the retiring RVP and the Board appointed him.

We have confidence in the membership of the Society. It seems very logical that the Society will be much stronger at the Regional level if more interest is taken at that level in choosing leadership. It is our hope that this can be done in a true spirit of co-operation and in a way that meets the various needs of each individual Region, for no two Regions are constituted alike.

There are other important matters to report to you about but I shall defer them until the April Bulletin because they are relative to the Awards and the 1958 blooming season which will be upon us in a few short months.

MARION R. WALKER, *President*

THE 1958 ANNUAL MEETING

at

SYRACUSE, N. Y., JUNE 4-7

Region 2 and the Empire State Iris Society have arranged the following feature attractions for your entertainment:

Tours of eleven convention gardens at Rochester, Ithaca, and Syracuse in the heart of the famous Finger Lakes Region of Central New York. Hundreds of guest iris and most of the newest introductions will be on display in these gardens.

Meetings of special-interest societies affiliated with the AIS and Robin dinners are new features being scheduled for this convention.

The day at Rochester will feature visits to display gardens and a special tour of the Eastman Kodak Company for camera fans.

The day at Ithaca will include an Iris Show open to all AIS members, special scientific programs, and a tour of the beautiful campus of Cornell University.

Many gardens in Region 2 in addition to the convention tour gardens will be open to visitors both before and after the meetings.

Begin making plans to attend these meetings and watch for additional details in the April Bulletin.

Iris Sputniks Roam Outer Space

Vice —

HELEN McCAUGHEY, Okla.

Poverty Bay, where Gisborne is situated is surely a misnomer if I've ever heard one. It is the richest farm district in the country and the lovely white cliffs of Young Nick's Head, named for the cabin boy who sighted them, was the first land seen by Captain Cook. Owing to some misunderstanding the Maoris proved very unfriendly, forcing Captain Cook to leave hurriedly and in ill humor. Consequently he called the place Poverty Bay.

The Poverty Bay Horticultural Society's Rose and Iris Show was the eye-opening event of the Annual New Zealand Iris Society Meet, held in Gisborne, November 1, 2, 3, and 4. What a lovely show it was. Mr. Barker, the mayor, opened the show officially with a welcome to the Americans, and other visitors. Scotty in his usual good humor accepted the welcome and pleased the large gathering with his wit and charm. The awards were made and for us it was amusing when a specimen of Bellerive, which was bred in St. Louis, won the Mollie Emms' Trophy for Queen of the Show and was awarded by Scotty to Mollie Emms. You didn't need glasses to see that Clifford Benson's Bellerive was the outstanding horticultural specimen.

After the formalities one's eyes caught a nine-foot iris that looked like a tall Texas tale! Upon close examination it proved to be a cross of Sputnik X Sno-hurry. It was a lovely pink iris created of paper mache by George Emms. Perched atop the blossom was a bee (truly Texas size) made by Valerie Redstone.

Starting early next morning were the garden tours. With the closeness of the gardens in this area their tours did not start in the wee morning hours as ours do. But the gardens were among the loveliest I've ever seen. It was hard to believe that plants we know as cold weather varieties, like lilacs, peonies, and tulips will bloom alongside things we know as glasshouse plants, such as cinerarias, cyclamens, and orchids in the garden here. The iris were in bloom and behaving as we hope they will do for us in Oklahoma in 1959. Each clump was certainly a specimen planting in all the gardens. In this climate everything grows beautifully. Have actually seen fence posts sprouting during our drives, and hesitate to think what might happen to a spade should it be left in the ground overnight.

The night of the Annual Meeting, Mrs. Jean Stevens, the President, read greetings from our own Marion Walker, and thanked the Gisborne Group for their outstanding Meet and efforts. Then the subject of Robins arose and Scotty told of their success in our Society.

The highlight of the evening, and certainly one of the events to remain long in my memory was the lovely Maori Concert Party. Forty young Maori men and women, danced and sang for our entertainment. The rhythm and their glorious voices were the best I've ever heard. The closing song, "Now Is the Hour" was such a fine rendition that it was being hummed by our group for days after.

A late supper closed the evening. The New Zealander makes one very happy with, in addition to the three normal meals, the morning and afternoon teas, and late suppers. We are all finding trouble getting our clothes to fit, after a month of such diets!

The Social Evening which closes the Annual Meeting was Scotty's shining triumph! He showed slides and commented on them, then charmed the group with stories, as is his forte! Ken Anderson was asked to comment on his fishing in N.Z. which was successful, and to elaborate a bit on Disneyland, which all the iris lovers loved!

An Iris Ballet was presented to the members and tied in beautifully with a tiered cake, bearing lovely pink irises. The cake was later served at the supper which brought the meeting to a close.

—Versa

ESMOND JONES, N.S.W.

It was late summer when I left Muswellbrook, New South Wales, and my own garden, with its transplanted rows of iris, was a far cry from the glory of Spring, and the wealth of iris I saw in the West Coast gardens.

Mr. Frank Hutchins, the President of the Sydney B. Mitchell Iris Society, met me when I arrived in the Bay Area, and on the 4th and 5th of May, I attended the Annual meeting and Iris tour of Region 14.

In "Hutch's" garden I saw his interesting and progressive amoena program. This keen hybridizer seems to have every conceivable combination of amoena x amoena, and amoena x variegata, in his well-grown seedling rows.

The smallest garden on my iris tour was Mr. Larry Gaulter's, but one which seemed to me, to be planted with the best of the newer things. Especially impressive were Gaulter's own selected seedlings, Forever Spring, a huge rosy-pink, (Lavenesque x Pathfinder), and Fleur de Blanc, a heavily ruffled white, (Snosheen x Vanda) x (Vanda). Pink Enchantment and Native Dancer were vieing for honours in the pink class, and Rehobeth, complemented the flamingo tones of these two fine iris.

In Mr. Walter Luihn's garden, I saw an interesting array of Onco-breds growing in specially prepared, raised beds. The outstanding varieties were Mount Mazama (Bailey, 1956), Anytime (Cavagnaro, 1956), and Nomohr (Gibson, 1955). The winner of the Regional Cup

was Jack Craig's Golden Gladiator, which comes from Lady Mohr x Goldbeater, to be introduced by Tell Muhlestein.

For some years I have been growing Salbach iris and I was privileged to meet this dean of hybridizers when I visited Mr. Carl Salbach atop the Berkeley hills. In spite of his years, he has an intriguing red line for the future.

At the Sacramento show many fine iris were on display, though the season was long past peak. Iris that won ribbons in their respective classes are: Fortune's Gift, Spanish Peaks, Starshine, Ola Kala, Truly Yours, Mystic Melody, Lady Mohr, Thotmes III, June Bride, Mary Randall, Elmohr, and Vatican Purple.

Mr. Tell Muhlestein was guest speaker at the annual meeting and tour of Region 14, and at the close of this tour, he and I visited the Rainbow Hybridizing Gardens at Placerville, en route to Utah. The spectacle of the wealth of bloom in the rows Gatseii and Susiana, was a breathtaking sight.

During my stay in Provo, I was disappointed in that I was too early for the tall bearded season, but in Val Jacobsen's Dwarf garden, I saw for the very first time, a true green iris. (Green Spot x Bee). A well grown clump of Rainier Valley, was blooming profusely against the majesty of the Utah Mountains, in the Luzon Crosby gardens. Margaret Albright joined the Muhlesteins and myself, on our trip to Roy, Utah, where I was the guest of Mr. and Mrs. Jim Hamblen. To my way of thinking, Melba has the tidiest and one of the most interesting gardens I have ever seen. (I wish my garden could be like that.)

Dwarfs at Peak

Then I found myself in Declo, Idaho, where I was the guest of one of my Robin directors, Mrs. Wilma Vallette. The Dwarf season was at peak and many interesting dwarfs were to be seen, though too numerous to mention here.

To Mr. Bennett Jones of Portland, fell the monotonous difficulties of being my sponsor. In Oregon I was really in the thick of things, and I was able to see many fine iris in the various commercial gardens.

At Mr. Fred DeForest's, I saw acres of beautifully grown iris, and of special interest were the rows and rows of Frances Kent seedlings. The outstanding named iris that I saw are Violet Hills and Irma Melrose, both from this hybridizer.

In Mr. Chet Tompkin's garden, I saw Muhlestein's Raven Country, an intense and colorful, deep raven black, which seemed to be at its best in the unusually cool and wet Oregon spring. I like this one immensely. Really outstanding is a Tompkins seedling, a pure white ground plicata which is gaily stippled bright red. Its boldly formed flowers are carried on tall, well-branched stalks. Oedipus Rex, (Zurbrigg, 1955), is a vastly improved variegata. Tall well-branched stalks carry copiously-formed blooms, with bright yellow standards, and rich red, flaring falls. Clean at the haft.

A wealth of bloom was to be seen by the connoisseur in the Cooley display gardens, at Silverton. Really impressive were: Lynn Hall, Frost and Flame, Golden Garland, and Fluted Copper. In the growing fields I saw selected Hall seedlings for future introduction, of unbelievable perfection of form, in shades of lavenders, pinks, orchids, whites, and yellows. I also had the privilege of meeting Dr. Kleinsorge and seeing the results of his concentrated hybridizing, producing quality iris. I was especially intrigued with his Fluted Copper, which is another 1957 introduction.

A fitting finish to my western tour was the Schreiner gardens, at Salem. Here I saw further evidence of the great advance being made in the black class, and in other fields of the hybridizers' endeavour. Galilee, (Fay, 1956), called me back time and again, and I can say without reservation, that this is the finest iris I have ever seen. In this wonderful garden I saw Hamblen's Pretty Carol and Glittering Amber, two very fine iris from Melba's distinctive line of breeding. It was encouraging to see Cool Valley and Fairy Frills, two iris from "down under," doing so well. The seedling rows gave forth of some very close approaches to spectrum red, and closer to my own interests, endless approaches to pink amoenas. I noted that Bob has size and height in this line, something that my own pink amoena line lacks. Trim was at its best in this and the Tompkin's garden, and Schreiner's second patented iris, Bronze Bell, looked magnificent in the clumps of newer things.

I am an amoena enthusiast, and am fortunate in that I was able to visit with Mr. Earl Roberts in Indiana, and Mr. Kenneth Smith on Staten Island. As it was late June before I left the West Coast, I had missed the bloom season, but welcomed the opportunity to talk with these two men who have worked so long in the amoena field. I had admired Smith's Elizabeth Noble in the Gaulter garden, and believe it to be one of the finest amoenas available.

Each day as New York called me further away from iris matters, my host on Staten Island, Mr. Edwin Rundlett, a well known authority on iris, in his wealth of knowledge, proved a source of inspiration in his willingness to share this knowledge with a neophyte Australian Irisarian.

The warmth of hospitality extended to me throughout my stay can only be exceeded by the wealth and promise of the things to come.

NOTED BREEDER RECEIVES AWARD

Even as this Bulletin is being paged, word has just been received that Mr. Paul Cook, of Bluffton, Ind., has been awarded the Foster Memorial Plaque. The Award is made by The British Iris Society in recognition of his outstanding work in the improvement of all types of irises.

1958 Membership Campaign

ROBT. S. CARNEY, *Chairman*

Dr. Randolph has had to forego the Chairmanship of the 1958 Membership Campaign due to the pressure of other work and it was with some trepidation that I agreed to undertake the responsibility of the Chairmanship in his place. It is going to be hard to fill his "Shoes" but if all the RVPs will co-operate, I believe we can make the 1958 Campaign even more successful than the 1956 and 1957 campaigns.

Campaign Objectives

1. The major objective of the campaign is a minimum of 1000 new members. The 1957 campaign produced 874 new members with only 17 Regions participating and if all 23 Regions participate, it should not be difficult to reach our goal this year.

2. A net increase of approximately 875 members is needed to bring our membership total to 6000 at the close of the campaign. The net increase in 1957 was 305, so we really have a job cut out for us if we are to increase our membership to the desired total.

3. Regional quotas have been established as a 25 per cent increase in the membership of each Region at the start of the campaign as listed in the table accompanying the 1957 report.

Scoring

<i>Type of Membership</i>	<i>Points</i>
Single Membership	1
Family Membership	2
Sustaining Membership	5
Single Triennial Membership	5
Family Triennial Membership	7
Research Membership	10
Life Membership	25
Change from Single to Family Membership	1
Change from Single Triennial to Family Triennial Membership	2

Prizes for Contestants

Prizes will be awarded in 1958 to individual contestants on the basis of points obtained by each contestant during the campaign.

1. A Grand Prize of a life membership will be awarded to the member securing the most points.

2. A Second Prize of a 10-year membership will be awarded to the member securing the second highest number of points.

3. A Third Prize of a 5-year membership will be awarded to the member securing the third highest number of points.

Prizes for Regional Vice-Presidents

The following four prizes are available to Regional Vice-Presidents in 1958.

1. A Grand Prize of a life membership will be awarded to the RVP of the Region which achieves the highest net membership gain during the campaign.

2. An additional Grand Prize of a life membership will be awarded to the RVP of the Region which achieves the highest percentage gain in new members in excess of its assigned quota of 25 per cent of its membership at the beginning of the campaign. If the same RVP wins this and the preceeding award, only one life membership will be assigned to the recipient.

3 & 4. Awards of Second and Third Prizes of 10- and 5-year memberships, respectively, will be made to RVPs for the second and third highest percentage gains in new members.

Contest Rules

1. The 1958 membership campaign was initiated on October 1, 1957 and will close on September 30, 1958.

2. New memberships must be reported by contestants directly to their Regional Vice-Presidents. To be included in the competition for prizes, memberships must be submitted to the RVP together with the name, address, and remittance of each new member on or before the closing date.

3. Membership renewals solicited from members in arrears for two years or longer according to the records of the central AIS office, will be counted as new members.

4. A record of memberships solicited by contestants and reported to their RVPs during the campaign must be submitted to the chairman of the National Membership Campaign before October 15, 1958, together with the names and scores of the three Regional contestants credited with the highest number of points secured during the campaign.

The rule requiring memberships solicited during the campaign to be reported to the RVP should be more widely publicized in regional newsletters and bulletins for memberships not so reported cannot be included in the campaign totals.

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Classification of Eupogon Irises

L. F. RANDOLPH & G. H. M. LAWRENCE

This classification recognizes more series of Eupogons or true bearded irises than have been included in earlier classifications. Interest in the shorter bearded irises has increased rapidly in the past few years and a real need has developed for the establishment of additional horticultural classes of these popular garden irises.

In the horticultural classification adopted at the Boston meeting of the AIS in June, 1953 (c.f. AIS Bulletin 136) three groups of bearded irises were recognized. Species and cultivars up to 15 inches in height were classed as Dwarfs; those from 15 to 28-inches in height were classed as Intermediates and those which are 28 inches or more in height were assigned to the Tall Bearded category.

The present classification retains these same height limits and in addition makes use of differences in height and size of bloom to distinguish two classes of dwarfs. Within the 15 to 28-inch range, groups have been established for Intermediates, Border Iris and Miniature Tall or Table Iris. Species and garden varieties which are 28 inches or more in height remain in the Tall Bearded group.

In defining each of the six series of Eupogons, various characteristics in addition to the height of the bloomstalk, have been utilized, with emphasis on traits which are easily recognized in the garden. A group of representative species is included in each series.

It is with definite reservations concerning their taxonomic status that various species are listed as distinct entities in this classification rather than being considered as synonymous of other species. Most species of the Subsection Iris are sufficiently well known to place them with assurance in the appropriate series as they are here defined; but their evaluation as good species is often hampered by inadequate descriptions, insufficient herbarium material, or lack of familiarity with the range of variability exhibited by the plants in their native habitats. Bearded iris species as a group are extremely variable and much of this variability is heritable as shown by their breeding behavior; by differences among clones grown side by side in cultivation; and by the prevalence in wild populations of variation in flower color, form of spathes, leaf shape, and other traits not easily influenced by environment. Conclusions based on observations of a few clones or a few herbarium specimens can be and often are very misleading. Until a thorough revision of the genus *Iris* is undertaken at the species level the status of many species will remain in doubt.

The aril irises (Pogons) are not included in this classification. Many new varieties of arils have been produced in recent years and this distinctive group merits special consideration, but rules being formulated for their classification by persons especially interested in these irises were not sufficiently well defined to be applied in this revision.

In the development of this classification the assistance of many iris specialists, both from this country and abroad, is gratefully acknowledged. A preliminary draft was discussed informally at the Memphis annual meeting in April, 1957, and subsequently approved by the directors for inclusion in the new book being sponsored by the AIS. At the directors' meeting in St. Louis in November, 1957, minor changes were incorporated and the following revised draft was adopted as the official classification of the Society to be used for registrations, awards, catalog descriptions and other purposes.

Descriptions of Eupogon Series

Subsection Iris, commonly known as the Eupogons or true bearded irises, is the second largest in the genus; only the beardless irises (Apogons) include more species. The species and clonal garden varieties of this subsection are separated into series according to the following classification:

1. *Miniature Dwarfs*—plants up to 10 inches high, stems unbranched or rarely branched with 1 or 2 terminal buds, flowers 2-3 inches across or sometimes larger, the leaves rarely exceeding the flowers, often falcate (curved or sickle-shaped); the earliest blooming bearded irises and some later blooming garden hybrids. Species and cultivars with either 16, 24 or 40 chromosomes and their derivatives.

I. attica, Boiss. & Heldr.

I. balkana, Janka

I. bosniaca, Beck

I. binata, Schur

(assumed to have originated as a natural hybrid of *I. pumila* and *I. aphylla*)

I. chamaeiris, Bertoloni

(the true species, not the taller more common forms)

I. griffithii, Baker

I. mellita, Janka

I. potaninii, Maximowicz

I. pseudopumila, Tineo

I. pumila, L.

I. reichenbachii, Heuffel

I. rubromarginata, Baker

I. scariosa, Willdenow

I. tigridia, Bunge

2. *Standard Dwarfs*—plants 10-15 inches high, stems unbranched or branched, flowers 3-4 inches across, the leaves often as tall as the flowers and not falcate; blooming somewhat later than the Miniature Dwarfs. Species and cultivars with chiefly 40 or 48 chromosomes, including the chamaeiris-type varieties, aphyllas and the



Mohr Haven, a Reynolds seedling, is from Snow Flurry X Capitola. The influence of the Onco-cyclus is clearly shown in this lovely flower as evidenced in the wide petals, rounded shape, and darkening around the beard.

lilliput hybrids of predominantly *I. pumila* and tall bearded parentage in the 10 to 15 inch height range.

I. aphylla, L.

(not to be confused with the taller 44-chromosome natural hybrids frequently in cultivation.)

I. benacensis, A. Kerner

I. hungarica, Waldst and Kit.

I. italica, Parlatore

I. olbiensis, Henon

I. parnomitana, Todaro

(perhaps only a taller Sicilian form of *I. pseudopumila*—one of the Miniature Dwarfs.)

I. subbiflora, Brotero

I. virescens, Redoute

3. *Intermediates*—plants 15-28 inches tall; chiefly clones of hybrid origin, including natural hybrids previously described as species and garden hybrids of dwarf and tall bearded parentage resembling the natural hybrids; stems non-flexuous, branched and extending above the erect foliage; flowers mostly 4-5 inches across; blooming period intermediate between that of the Standard Dwarfs and Standard Talls. Mostly hybrids with 44 chromosomes and much reduced fertility.

Albicans (*I. albicans*, Lange)

Aphylla of gardens,

(not *I. aphylla* of Linnaeus which is a Standard Dwarf)

Florentina (*I. florentina*, L.)

Germanica (*I. germanica*, L.)

(For botanical purposes this clone remains under the name *I. germanica*, L. and is the nomenclatural type of the genus. It is of hybrid origin and is known only in cultivation or as a naturalized plant escaped from cultivation.)

Kashmiriana (*I. kashmiriana*, Baker in part.)

Kochii (*I. kochii*, Kerner)

4. *Miniature Talls* (Table Iris)—plants 15-28 inches tall, with flowers not more than 2-3 inches in width and borne on slender flexuous stems; blooming with Tall Bearded varieties. Species and cultivars with mostly 24 chromosomes and growth habit resembling that of *I. variegata* and related species.

I. cengialti, Ambrosi

I. illyrica, Tommasini

I. perrieri, Simonet (inedit.)

I. reginae, Horvat

- I. rudyskyi*, Horvat
I. variegata, L.
5. *Border Irises*—plants 15-28 inches tall; flowers mostly 4-6 inches across, on stiffly erect stems, the leaves shorter than the flower stems; blooming with the Standard Tall Bearded irises. Species and cultivars of shorter tall bearded irises with chiefly 24 or 48 chromosomes.
- I. albertii*, Regel
 Amas, collected from Amasia
 Asiatica (*I. asiatica*, Stapf)
 Bartonii (*I. bartonii*, M. Foster)
I. belouinnii, Bois. & Cornault
 Biliottii (*I. biliottii*, M. Foster)
I. imbricata, Lindley
I. junonia, Schott & Kotschy
I. longiscapa, Ledebour
6. *Standard Tall Bearded*—plants more than 28 inches in height, flowers 4-7 inches across, on stiffly erect stems; blooming later than the Intermediate hybrids and at the end of the bearded iris season. Species and cultivars with mostly 24 or 48 chromosomes, or derivatives of these numbers.
- I. croatica*, Horvat
I. cypriana, Baker & M. Foster (*I. mesopotamica* Dykes, a syn.)
I. kashmiriana, Baker (not the 44-chromosome natural hybrid which is an Intermediate hybrid.)
 Macrantha (a taller form of Amas)
I. managaliae, Prodan
I. pallida, Lamarck
 Ricardii (a clonal cultivar; the plant may be *I. mesopotamica*.)
I. trojana, Kerner
I. varbossiana, K. Maly

Characteristics of Miniature and Standard Dwarfs

The separation of the dwarfs into two groups, the Miniature Dwarfs and Standard Dwarfs, divides along natural lines the species classified as dwarfs by Dykes, except that the true *I. chamaeiris*, which is 6 to 9 inches in height, is included with the Miniature Dwarfs and the other taller 40-chromosome species are classed with the Standard Dwarfs. Most of the miniature species have small flowers in pleasing proportion to their short stems, but *I. reichenbachii* and the closely related *I. bosniaca* are exceptional in having flowers that are appreciably larger than those of other species in this class. With the exception of *I. binata*, some of the shorter Lilliput hybrids and a conspicuously branched 24-chromosome dwarf being distributed erroneously as *I. bosniaca*, the miniature species and

the cultivars derived from them ordinarily have no more than one or two terminal buds and are rarely branched. The small size of the binata plants places them in the Miniature Dwarf class; they are branched and probably originated as a natural hybrid of *I. aphylla* and *I. pumila*; the binatas are rare in cultivation and have been collected only from localities in the Balkans where the assumed parents are known to occur in the wild.

The species listed in the Standard Dwarf group for many years have been considered as typical dwarfs, with the exception of *I. aphylla* which is unique in having branches often originating at the ground level. With our present knowledge of chromosome numbers, not available to Dykes, it has been possible to distinguish the 48-chromosome forms of *I. aphylla* from the 40 and 44-chromosome natural hybrids, some of which are much taller than the true species; being unable to do this and being impressed by their conspicuous branching Dykes classed them all as Tall Bearded irises.

The variation in height from about 6 to 16 inches among the various clones of *I. aphylla* with 48 chromosomes which are being grown in gardens at the present time suggests that this is a very polymorphous species; since the majority of these clones appear to fall in the 10 to 15-inch category *I. aphylla* is here classified as a Standard Dwarf. Among the natural hybrids of *I. aphylla* are the miniature 40-chromosome binata types of assumed *aphylla-pumila* parentage and the taller 44-chromosome hybrids which are apparently of 40-chromosome dwarf and 48-chromosome *aphylla* parentage. Because of their miniature size the former are classed as Miniature Dwarfs; some of the latter are more than 15 inches in height and are classed as Intermediates; others such as *Gracilis* and *Dr. Mann* are less than 15 inches in height. These are classified as Standard Dwarfs if they are from 10 to 15 inches, or as Miniature Dwarfs if they are less than 10 inches in height.

During the preliminary discussions of appropriate names for the taller dwarfs it was suggested that "Lilliput" be selected or be listed as a synonym for "Standard Dwarf," which was the name finally chosen. However, the term "Lilliput" was applied originally by Mr. Geddes Douglas several years ago to the first generation hybrids of *I. pumila* crossed with tall bearded varieties and it was believed that confusion would result if this name were reassigned to an entire series including numerous types other than the *pumila*-tall hybrids. Also, the lilliputs vary in height from about 6 to 18 inches and some of them rightfully should be classed as Miniature Dwarfs and others as Intermediates.

The Intermediate Hybrids

In the present classification the Intermediates include the natural and experimental hybrids of dwarf and tall bearded parentage which range in height from 15 to 28 inches and have a blooming period intermediate between that of the typical dwarfs and tall bearded irises. The

best known representatives of this class are the highly sterile 44-chromosome natural hybrids, such as Albicans, Florentina and Germanica, which were originally described as species. Recently, many and varied hybrid combinations of dwarfs and tallers are contributing interesting new cultivars of this same type but of much improved garden value; some of these are more fertile than the older Intermediates and advanced generation progenies are being obtained from them.

Their earlier blooming period separates the Intermediates from the Border Irises which have the same height limits. Otherwise, these two groups are similar in appearance; they have blooms of intermediate size and a variable amount of branching.

The renewed interest in the Intermediates, which has developed recently, is resulting in the appearance of much improved garden varieties some of which bloom somewhat later than the typical Intermediates and at about the same time as the earliest Border Irises of pure Tall Bearded parentage. If this trend continues it will become increasingly difficult to maintain these two groups as distinct entities and revision of the definitions may be necessary.

The Miniature Tallers or Table Irises

Slender, flexuous stems and flowers of small size are the characteristics which most readily distinguish the Miniature Tallers or Table Irises from the other two classes in the 15 to 28-inch height range—the Intermediates and Border Irises. Originally selected by the Williamsons of Bluffton, Indiana, for their value as table irises and so named by them, the alternative Miniature Tall designation is proposed for them in recognition of their value not only as cut flowers but also as attractive garden subjects. The species included in this category are diploids as are the varieties originally selected by the Williamsons as representative Table Irises.

It is obvious that the slenderness of the stems and the style of branching of the Miniature Tallers came from *I. variegata* rather than from the taller, more rigidly erect and closely branched types of *I. pallida* common in gardens. However, the lavenders and blends with inconspicuously veined hafts which are to be found among these varieties most certainly have *pallida* ancestry. Of special interest in this connection is the fact that there are shorter, more openly branched relatives of *I. pallida*, notably *I. cengialtii* of the lake region of northeastern Italy and *I. illyrica* from the neighborhood of Trieste, that could have been involved in the origin of the early diploid tall bearded varieties from which the Miniature Tallers have originated. It is certain that many different kinds of *pallidas* were grown in gardens during the late nineteenth and early twentieth centuries and were an important element in the development of the Miniature Tallers as well as other types of modern garden irises.

The Border Irises

The advisability of establishing a separate group of Border Iris distinct from the Intermediates has been questioned. It is true that both of these groups, as defined in this classification, include plants of similar growth habit which are of the same height range and have flowers of similar size. However, the Intermediates typically bloom much earlier than the Border Irises and to stimulate interest in developing more and better early blooming varieties in the 15- to 28-inch height range it seems desirable to retain the Intermediate group distinction from the later-blooming shorter tall. In recent years most breeders of Tall Bearded irises have been discarding their shorter seedlings, or if they have been named their unique value as plants for the front of the border during the tall bearded season has not been emphasized adequately. It is for the purpose of promoting these shorter tall and stimulating breeders to name more of them that the new group of Border Iris has been formalized. The species listed in this category are chiefly tetraploids but the diploid *I. imbricata* is also included.

The Standard Tall Bearded irises, here defined as all true bearded species and cultivars 28 inches or more in height, are numerically the most important of the Eupogons and they will undoubtedly remain so for many years to come. They are also grown much more widely than any other kind of iris. The species and collected varieties from which originated this very large group of cultivars came from geographic areas extending from northern Italy and Yugoslavia eastward through the Balkans and Middle East to the Kashmir in northern India. Of these *I. croatica*, *mangaliae*, and *varbossiana* only recently came to the attention of American iris collectors and have not been used at all extensively by hybridizers. Since at least two of these species are tetraploids and all are native to more northern areas than those from which *I. cypriana* and *I. mesopotamica* were collected they may prove to be of special value in developing varieties of Tall Bearded irises that are more winter hardy than are those of *I. cypriana* and *I. mesopotamica* parentage.

One of the important purposes of an iris classification is to serve as a guide to the registration of new varieties. The following symbols are proposed for use together with the descriptions of varieties (cultivars) required by the Registrar: Miniature Dwarf Bearded—MDB; Standard Dwarf Bearded—SDB; Intermediate Bearded—IB; Miniature Tall Bearded—MTB; Border Bearded—BB; Standard Tall Bearded—STB. The use of added descriptive words with these symbols should be encouraged, especially when more or less distinct lines of breeding are included in the same group. For example, in the Standard Dwarf Bearded category the lilliputs should be designated SDB, lilliput hybrids; the chamaeiris types as SDB, chamaeiris hybrids; the aphyllas as SDB, aphylla hybrids. The alternative Table Iris designation may be used if preferred to the Miniature Tall Bearded MTB designation.

It is hoped that dealers will follow this classification in arranging varieties in their catalogs. This is important in effectively promoting interest in the many different kinds of irises now available to the gardening public.

The establishment of awards by the directors at their November, 1957 meeting for each of the four new groups of Eupogons included in this classification should encourage more widespread interest in the shorter bearded irises being promoted so effectively by the Median Iris Society. The future holds much promise of more beautiful irises of many different kinds.

We Need Disease Research

H. N. METCALF, Mont.

There is almost certainly not a single irisarian whose plantings do not suffer rather regularly from some disease. The prevalent diseases will vary in different parts of the country, but they are, indeed, ubiquitous trouble makers. Jean Stevens, in her address to the Los Angeles convention in 1955, pointed out, from her experience, the increasing difficulty in growing iris well in much the same ground over an extended period of years, and it is probable that numerous other iris growers could relate similar stories.

When troubled growers seek control information, they find that a wide variety of remedies are suggested, including some that appear to be strictly from witches' cauldrons. Looking further, we find that little is known concerning the life histories of most of the more important afflictions, when the weakest point in the life cycle of a disease is practically always the ideal point at which to attempt control. In short, there is a dearth of information concerning the life history and most effective control measures for iris diseases. The free and rapid dissemination of iris rhizomes about the country virtually insures that any disease that is a good traveler will have a chance to operate freely, even in ground that has not previously grown iris.

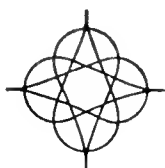
Some varieties are said to be "tender." One is led to wonder whether this is actually lack of winter-hardiness, or whether it may not also be a reflection of differential disease susceptibility. Certainly in the northwestern portion of the United States, and doubtless in other areas as well, a high proportion of winter losses is due to the depredations of botrytis. The presence of this killer is usually not discovered until too late for any remedial measures. Continuous culture of iris in the same plot of ground probably increases the concentration of the spores of this disease, the higher concentration likely increasing the probability of increased numbers of mutations in the fungus, some of which may be

in the direction of increased pathogenicity. If high spore concentrations are combined with increased pathogenicity, while the inherent resistance of the iris remains the same, how can we help but have increasing difficulty in raising fine clumps of iris? Whether such a situation actually exists is, of course, highly speculative, and here again we must say that we don't know.

In southern California, where onco and oncobred iris find the climate congenial, it appears that one of the major disease problems lies in the field of virus infections, which are likely to be vectored by insects. The mild climate also favors heavy winter concentrations of aphids on iris plants, but proof appears to be lacking as to whether there is any connection between aphids, or other insects, and the dissemination of virus diseases among iris. We further lack information as to the exact nature of the viruses affecting iris. The difficulty called "pineappling" is not uncommon in the southwest but is rarely seen, if at all, in the northwest. Is this tied in with winter activities of insects, is it a virus vectored by insects, or what is its exact nature? We don't know.

These few examples are taken merely to indicate some of the voids in our knowledge of iris diseases and abnormalities. Others could readily be cited. How are we to get the needed information? Experiment Station pathologists are often reluctant to undertake investigations unless it can be shown that an economic loss is being suffered from infections of a given disease, or unless plants grown by a large number of persons are being affected. Further, there is always the question of financial support needed to conduct research projects. It would seem that the AIS should have no difficulty in developing evidence on the first two points, and that it should be within the realm of possibility for the Society to sponsor research on all or most of the important iris diseases over a period of years. Some important work has been done, and more is in prospect, and deserves the active support of every AIS member. But the pace could be accelerated toward the day when we can change those "don't knows" to "do knows."

Perhaps an opportunity for the membership to contribute directly to a disease research fund would be worthwhile. Only a small amount per member would yield a sizable fund.



Behind the Eight Ball

ANN ONAMUS

"Disturbed." That is the word used by hybridizers in reference to an iris which wanders even slightly from the accepted modern form of three standards and three falls; preferably domed and flared respectively. It also most aptly describes an iris author's feelings when he finds one of these "disturbances" among his creations.

But I like them! The more freakish they are the better. Nor am I alone. Most of us like to pretend we are working toward a pleasing balanced double iris. Not me, I'll admit I just plan hybridizing programs that may produce something different. For where else in this world, within a space of 45 square feet, can I be treated to a full scale gamut of sensational emotions from lurking fear, through stimulating excitement, wholehearted sympathy, intriguing romance, and respectful reverence to blissful utter insensibility?

Fear comes when I first step outside to this bed of my favorite derangements. A large clump of Pinnacle greets me with stalk after stalk of "things" with only two standards and the same number of falls. My instant reaction is to thrust both hands as deep into the pockets of my jeans as possible; for these would-be flowers look appallingly like a pair of vicious jaws enhanced by a low-set mustache. They seem to be waiting patiently for a finger or even a nose to stray within reach. There is always a lingering desire to pry open the jaws and examine for dental purposes; of course, from a safe distance.

After sidling around Pinnacle I come next to Thurlow Weed. This is an iris no one would purposely include in a "doubles" program. It resembles a tulip much more than it does an iris. All six petals are identical and curved to form a cup-like flower. It is dark cream, heavily veined at the throat with brownish yellow. Each petal has a thin line of beard. The stamens are missing, only white stumps where they should be, but stigmas on all blossoms are perfectly normal. This might indicate the possibility of seed production.

Another step and this space contains Double Eagle, one of the first double iris to be listed commercially. I think I saw it in Long's seed catalogue at \$25. That was several years ago and eventually the price came down and I could barely afford a plant. The first year it bloomed I found just how far from understanding catalogue descriptions I could be. I was sadly disillusioned. From the wordy portrayal I pictured stalks of huge heavy-substanced, ruffled golden double flowers. The first stalk produced nothing but normal iris of a not too, to me anyway, likable dull greenish color. It eventually yielded some "doubles" of from six to twelve standards and also a multiple number of style

arms and anthers. Each year I become a little more tolerant of Double Eagle and now fully realize it is a long step in the advancement of an ideal double iris. But I still have a tendency to think of a yellow plate of sun-bleached, and no doubt spoiled, spinach each time I pass a fully double blossom.

My next move takes me to Rhythm, my "Blue Plate Special." Regardless of the time of day I pass this huge flat blue iris I get that early morning before breakfast anticipation and an urge to search my pockets for a knife and fork. On closer examination the sunny-side-up egg, slightly scorched strips of bacon and side of underdone shoe string potatoes always emerge as an *Eurema salome limoneus* entertaining a bumblebee among white style arms. In conjuring up this picture it is best to ignore the quite prominent beards on all six falls, as it can lead to an upset stomach with precious little more imagination.

Cherie, in a spot by Rhythm, further adds to the illusion of a breakfast table set with mismatched china. It furnishes a pink cup and saucer picture with flowers in which all three, and sometimes four, falls are joined in a perfect circle as the saucer, with the standards forming the handleless cup.

Still another place setting is signified by Clementina, the huge flat pale bluish lavender flower which is thickly speckled with deep wine. Records show this one to be the results of an embryo cultured seed from Snow Flurry x Capitola.

As I come to Dorothea, the third from last plant in this row, I am constantly inclined to clap both hands to my head in an effort to salvage my hat or even my hair. Yet this windblown, stormy appearance is not at all displeasing even though intensely agitating and a bit overwhelming. It is redeemed by a delicate lavender white coloring with a flush of bright amethyst.

Zua and her daughter, Elizabeth Huntington, the last two iris in the row, invariably make me place my hand to my mouth for a quick check on my teeth. They bring to mind and emotions a horrifying experience I once had with my detachable dentures. While on a trip several years ago I removed my teeth and wrapped them carefully in a tissue for the night. The next morning my husband with the maid's help, tidied the room of all loose paper and scraps—and my teeth. Everything went into incinerator before a rescue could be effected. You guessed right. I terminated my visit as of that second. I dream of this incident repeatedly with more and more devastatingly terrifying variations. Each crumpled piece of tissue contains my teeth, and instead of having visions of a litter-bug in my yard when I look at these iris, I do a double check on my mouth pieces. The stalks of both plants grow along the ground and their flowers more closely simulate crumpled and crinkled bits of white tissue paper than anything else I can conceive.

Around the end of the row and starting back I come to Mary Lee Motter. This is a very new iris to me *and* the public, as it was only

this year registered. The one stalk from my plant is extremely satisfactory as a double iris. Each flower brings to mind a beautiful crested chrysanthemum of bright and flashing color. The many softly twisted standards are varied in shades of violet—some clear, some dull, none displeasing.

Another step brings me to Brown Turban, which actually is not as disturbed as it is disturbing. It is inordinately indicative of the game "Button, button, who's got the button?" or in the case of Brown Turban, "Is there a button?" Yet I never fail to find the huge crisp flaring buff and brown flowers when I part the coarse prolific foliage. On future trips this hunt will not be necessary. By mid-blooming season it will stop trying to hide and proudly tower over even the tallest spike of its stiff leaves.

The next is Bearded Lady. On viewing this lone flower on the short stalk I regularly remark to myself with a giggle, "She ain't no Lady, she's got handle bars!" The one flower and abbreviated stalk are due to frost damage, but if the pleasing Mohr shape and radiant orchid coloring is at all improved in the normal blooms I may yet concede she is a lady.

Last but not least comes romance in the form of Butterfly Wings. Its porcelain blue standards are seemingly the center of attraction for a host of newly alighted, exotic butterflies with wine-striped creamy wings, which have only that instant arrived from some lush tropical jungle.

Butterfly Wings is never an iris of disturbed parts. It was placed at the end of this bed purely as a buffer between me and my freaks. Yet even after dwelling on its beauty for a period of time before leaving my yard, I still feel the need of a quiet thirty minutes and a tranquilizer pill after a tour of my disturbances.

Alata to Alata-

CONTINUOUS BLOOM THROUGHOUT THE YEAR

EDITH S. CLEAVES, California

Returning from a tour of an iris garden in Modesto, conversation gravitated to iris species. Suddenly, out of a clear blue sky, this disdainful remark, "Weasels! Give me the tall bearded irises—you can see them!"

Humbleness is never gaudy and can be gentle and beautiful. While the pogons hold enjoyment for me, I cannot forget that the patience of men who located, who grew, and who wrote about the various species, is truly responsible in many ways for the size and beauty of today's bearded irises. Please, I'll take the lovely irises, the "weasels."

In this Santa Clara Valley, growing some of the iris species has been fun as a hobby; of course, the moderate climate probably makes it easier for good growth if the soil and location are well planned.

Braves Wind, Cold, Rain

Where is the brilliance of the tall-beards in December and January? At best, only a few inches of future fans are showing above the soil. But one of the "humble" irises braves the cold, wind, and rain, persistently blooming. *I. unguicularis* (winter *stylosa*) will be a spot of color—lavender, dark blue, white or possibly the so-called pink. If foliage is cut back sharply in late August you will be able to see the blooms more easily. Picked, while in the bud, they will open nicely in the house for arrangements. Pollenizing isn't always easy; weather conditions may hamper. Too, the seedpod, almost tucked into the ground, may easily be overlooked in a large clump. There are several sub-species, but the usual ones are *I. unguicularis*, *I. unguicularis alba*, and a hybrid *Imperatrice Elizabetta*, a dark blue with shorter, finer foliage.

The truly lovely *Juno*, *I. alata*, has been successful, if potted. Slightly ruffled, a dainty blue with an orange ridge, it rises from the sheathed "corn-stalk" type foliage. At the base of the bloom are three blue appendages which gave the species the name "Winged Iris." After the blooms have faded, give it no more moisture. Put the container where it can be completely dry, even protected from evening moisture. In late September or early October new growth begins. Now you feed and water, putting it where there is some sun but protected from frost. When good growth has been made, the *I. alata* can be brought indoors where you can enjoy the bloom and you will be repaid for all the attention given it. Did you know this iris is one of the two in which the spherical grains of pollen are covered with minute spines?

More and Newer Colors

February will bring more and newer colors. Possibly some of the dwarfs are ambitious, certainly *stylosa* is still in bloom. In your border, rock garden, or in pots, members of the *Reticulata* family suddenly put forth their rather formal flowers. The tiny gem, *I. Bakeriana*, one inch and dark blue-purple; *I. Histrio*; *I. Histrioides Major*; the bright yellow of little *I. Danfordiae*; the hybrids, *Hercules*, *J. T. Dijit*, and the not-so-formal pale blue of *I. Cantab* may start their blooming period, which can last well into February with planned planting. They are easily grown. After their blooming period, allow these iris to dry thoroughly, storing the netted bulbs carefully until Fall, when it is time to replant. This is of course potting procedure.

Reticulatas Multiply Well

Reticulatas multiply well, thus the need to replant at least every two years for better results.

Anyone fortunate enough to have the Junos—*I. persica* or *I. Rosenbachiana*—also should be enjoying their bloom now.

A month of winds, March blows in many more rainbow colors, for now the Xiphium section, the Dutch Iris, in a sunny part of the garden, can have a nodding acquaintance with the Evansia, *I. japonica*, blooming in a shady area, with good growth in a slightly acid soil. In a north exposure they bloom profusely, often compared to orchids.

Nearby, in filtered shade and again, slightly acid soil, the many Californians are adding their graceful beauty, from the white *I. Douglasiana alba* to the brilliant deep blue of *I. tenax*. For height and background, *I. Munzii* is perfect. On 24" stems from a pale blue to a fairly dark blue, this iris gives a myriad of continuous bloom well into May. And it self-sets seeds galore! Easy to pollenize, I have crossed it with *I. tenax* hoping for a taller, deeper blue hybrid.

Blooms in Sunny Window

I. bucharica, another Juno, with white and yellow flowers, does well, potted, and blooms nicely in a warm sunny south window. Many have had excellent success with it outside. Gophers seem to favor it, too!

The Arils, *Oncocyclus*, *Regelias*, and *Onco-gelias* should be drawing interest now and into April.

Showers of April towards the last of the month may bring consternation! Will your species be undamaged for that annual Iris Show? After the middle of the month the tall-bearded pogons will be the center of attraction, of course. But take time and enjoy the dwarfs, too! *I. pumila*, *I. mellita*, the gold of *Reichenbachii*, and also *I. chamaeiris*, if you are a fortunate owner of one.

The Evansias in bloom should now be *I. confusa*; *I. Wattii*; the delightful Japanese roof irises, *I. tectorum*, and *I. tectorum alba*; and the dainty hybrid, Pal-Tec. These last three grow and bloom profusely in acid soil, well fertilized, and with shade after midday. Moving the clumps about every two years helps to keep them in good condition. They draw a great deal of nourishment out of the soil and it is therefore essential to feed them often. Has anyone *I. Henryi*, or *I. minuta*? As they bloom at this season, it would be so nice even to SEE one!

The Xiphiums, Junos, *Oncocyclus*, and *Regelias* fill out the early part of April. How regretful it is that their bloom period is not longer!

Some of the Hexagonas and Louisianas are now starting. Sometimes, the entrance of May brings a real hail storm, and our hope for show irises falters again. But, somehow, it all works out nicely and you find your pogons, your late Californians, a few Evansias, and Xiphium are still colorful. By now, the spurias have come into full bloom and *I. ochroleuca*, *I. Monnieri*, and *I. aurea* form a background for the smaller sub-species of the spuria section: *I. Kerneriana*, yellow, 10 inches; *I. Sintenisii*, lovely deep blue, 10 inches (how well this does in a normal

border and it sets numerous seed pods—also blooms again in September!); *I. graminea*, of plum color and fragrance, only six inches tall.

A cross of *graminea* with *I. foetidissima* has resulted in a dwarf, with foliage dying back in winter, but with the scarlet seed pod on stems of about eight inches resembling the pollen parent.

Iris foetidissima, though it has dull yellow and gray flowers, can be used for hybridizing. Crossing a yellow *spuria* with the *I. foetidissima* pollen has brought forth plants with lovely tall, shiny green foliage; graceful, too. The foliage has not turned brown in two years and this year, when the plants bloom, should give the answer to the garden value of the cross.

I. "Hyacinthiana" (*ensata*) in the rock garden has proved to be a heavy and long blooming plant, setting many seed pods, after the lovely blue flowers have faded.

I. kumaonensis (*pseudoregelia*) will bloom this May, I hope! Planted from seed, only one survived. A new planting a year ago in August, 1958 is more hopeful, for there are three plants from the three-year-old seed.

As June comes on the Japanese iris are ready to carry on the color. The exquisite *I. Kaempferi* and the Higo strains, planted in a richly prepared acid soil bed where they will have filtered sunshine, are exciting. Please, no lime conditions, if you want them to live. Flood them gently and deeply with water on hot days. They thrive best with their "toes cool." Others to bloom are *I. laevigata*, *I. pseudacorus*, *I. versicolor* and *I. shrevei*.

Xiphioides Not Often Seen

I. Xiphioides (English Iris) is not too frequently seen. Having lost a number of my first planting, I found they too, do well in a slightly acid soil. There seems to be a challenge for their success here, so this year there's hope for about fifty plants to fill in this month.

I. "acuta" (*Siberica* section) has a most unusual hairy or furry-looking root stock. This and other Siberians should do well if planted in slightly acid soil and kept well watered.

Irises are now slowing down, but for July and August there is one—*I. dichotoma* (of the *Pardanthopsis* section) that will be welcomed.

Somehow there are always a few dwarfs or a white table iris that also enjoy these months for some reason. September and October are the months for the remontants to start their cycle once again and even *unguicularis* has started blooming in September.

November and December—and now we start the year all over. *I. alata* has bloomed on Thanksgiving Day, also on Christmas and New Year's Day.

(Reprinted from Region 14 Bulletin, Spring 1957)

Reblooming Iris Becoming Popular

EDWIN RUNDLETT, N. Y.

Though remontant or reblooming iris were known as long ago as the 18th century, they have never gained the popularity they deserve. There are some good reasons for this, but none of these is likely to withstand the spirited efforts of over fifty pollen-daubing letter writers in John Bartholomew's American Iris Society robin system.

Five robins of ten members each are flitting back and forth across the country with stops in 21 states. California leads in membership by a large margin over Idaho, Indiana, New York, and Texas, which have three or four apiece. There is a waiting list for a sixth robin. There are no members in the states of Montana, Wyoming, North and South Dakota, Vermont, or New Hampshire. This is significant. All iris are regional in performance. Remontant iris are extremely so. If there are ever awards for this class, they would have to be on a regional basis; climatic regions.

Those who would like to see reblooming iris supersede the once-a-year performers, as hybrid tea roses did the old June-blooming hybrid perpetual roses, had better join forces with these ardent hybridizers. The writer, if asked, will make the contacts.

The line marking the northern limit of the most favorable zone for growing these iris starts in eastern Massachusetts and runs in a generally southwesterly direction to southwestern Kansas, then westerly across northern New Mexico and northwesterly through Utah, Idaho and the state of Washington. Points near the gulf coast seem to be less favorable, though a race adapted to that area could probably be bred there. Then too, there are a few localized climates above that line in which one should not be too discouraged by early failures with varieties originating elsewhere. One of these is a rather broad belt surrounding Lake Erie, including parts of Ontario, Canada, where peach trees thrive. Persistent interbreeding of locally satisfactory sorts, plus ruthless discarding of weaklings, can greatly broaden that favorable belt.

The difficulties which for many years have retarded progress in realizing a dream race of rebloomers as beautiful as the sorts now winning awards in spring are now being exposed. Not one of them is insuperable. They shall be overcome.

Here is one: cultural requirements. Producing a crop of blooms in spring is an exhausting accomplishment for plants. If they are to repeat in autumn they must have help. Full sun is essential. So is good soil. Clumps should be divided at least once in two years and have rich soil. Throughout most of the belt where winters are not too severe, there is drought in summer. Dry plants are starved plants. During the summer give from one to four side-dressings of balanced chemical

fertilizer, the same sort recommended for raising root vegetables. Sandy soils require more than heavy soils. Of utmost importance is thorough drenching with water once in a week or ten days during this heat spell. Without it the plants go into a rest period which delays blooming until frosts are due. It is important to cut to the ground level all bloom-stalks in late fall to prevent rot.

All but the most experienced breeders ran into another difficulty. We were all taught in school that like tends to produce like. In a cool climate the most natural thing to do when desiring to create a new and better rebloomer would be to search nearby gardens for the few that rebloom reliably, and then interbreed them. This was done thousands of times, and with uniformly poor results; few seeds produced, and still fewer seedlings. With no opportunity for culling, no progress was made. Why? The breeding stock that had been selected was a race of "mules." In other words, they were almost infertile hybrids between chamaeiris varieties and true tall bearded iris. Unmated chromosomes do cause trouble. Such varieties, unworthy of use in this project are: Black Magic, Crimson King, Dorcas Hutcheson, Eleanor Roosevelt, and Southland. In running down pedigrees, keep in mind that the old-time breeders often called chamaeiris "pumilas."

"Like Begets Like"

More of these "mules" could be introduced into gardens to advantage, as they are extra hardy and create bold masses of color for the front of the border. But while the demand is for large iris it is best to interbreed true tall bearded iris that have the reblooming tendency. If wanting dwarfs, interbreed iris of dwarf height having the trait. Sangreal and Papoose are two of the latter. It is hoped that more will be produced shortly.

Trouble number three is indeed exasperating. The Pacific coast has a climate so much more favorable for the commercial production of iris than colder inland or eastern locations, that the most attractive catalogs are produced there. Furthermore, gorgeous tall bearded irises rebloom there in a most enticing manner; varieties such as Extravaganza, Pink Lace, Joseph's Mantle, China Maid, and Lady Mohr, to mention but a few. These, bought by cold country hopefuls, just sit and sulk in their new homes. Their owners feel they have been "gypped," and often say so. The dealer had told the truth—for his own climate. There is a vast need for education in this field, and there are not enough catalogs in the northeastern states to accomplish it. Robin membership might be the answer. To make matters worse, some varieties originating in the east are far inferior in color to those originating in the west. More breeding is needed. Breeding is fun, and the field is uncrowded.

The average annual minimum temperature in Staten Island, N.Y., is from five degrees below zero to five degrees above zero. In eastern Massachusetts, where a good assortment of remontant iris can also be grown, the temperature average goes five degrees lower. In these two

areas the following are varieties of true tall bearded iris that rebloom in autumn under good culture: Autumn Bronze, Autumn King, Autumn Snowdrift, Autumn Sunset, Double Date, Fall Fairy, Fall Primrose, Guiding Star, Lugano, Menomenee, Polar King, Pottawatomi, and September Sparkler. There are others, too.

Now we come to the most fascinating part of the problem; breeding for remontancy. When crossing varieties that are within one iris class, like does tend to produce like. A trait such as remontancy can be very weak, so-so, or very strong. By careful observation of performance in the garden, it is possible to pick as parents those that carry the trait in strong measure. Usually these will rebloom well in advance of the first autumn frost, and not just at the last minute. However, one must not totally discard varieties that are known remontants in other climes. They could be, and sometimes are, good parents of remontants even though too slow to produce a fall crop themselves. Sally Ann and Joseph's Mantle are such iris.

In this climate seeds are habitually sown in coldframes in October or November so that they cannot germinate that autumn. The sashes are not added until February, as winter rains and snow seem to help germination. After putting on the sash, an occasional watering may be needed to prevent drying out. By the time the seedlings are three to four inches tall, the outside beds should be ready to receive them. If set out too late, hot weather sets them back before their roots are established, and one of the best ways of selecting remontants will be lost.

Normally a standard tall bearded iris will not bloom the first year from setting out from the frame. True remontants sometimes will bloom the first autumn. Such iris should be marked for breeding.

Bright Colors Needed

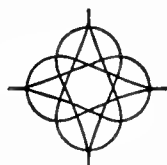
It seems to be easier to produce new varieties in yellow, gold, red, and bronze, than in blue or pink. There are too many with smoky colors on the market. Try for clarity by breeding bright colors of like nature together rather than blue-violets with yellows and reds. Tangerine-bearded remontants are definitely possible, but as this is a recessive trait, it is unlikely to show up unless it appears in the ancestry of both parents. Good blues of near-spectrum quality are almost non-existent. Let us create them.

The question has been asked, is it possible to pollinate in the fall and mature seeds? Yes, but with some trouble involving maturing cut stalks indoors. It is also possible to store pollen from fall blooms in the home refrigerator with silica gel and use that pollen in spring. The writer has done it successfully.

Shipping pollen in the mail has become a means of saving garden space and money. It keeps fairly well if dried a day or two before placing in envelopes. A bit of paper napkin next to the pollen-bearing

anthers will further help in keeping it dry in transit. If tucked within a leather or rubber washer inside the tiny celophane envelope and sealed with hot iron, the postal stamp-cancelling machine cannot crush it. Many a lot of pollen has been crushed and destroyed by those machines.

Enthusiasm runs high on the west coast regarding reblooming iris. It can do so over most of the nation. But unless each understands the problems of the other, sectional hard feelings will replace contagious enthusiasm. Iris people everywhere are nice people. Learn to know them by exchanging experiences in the mails.



Rules, Geometry, and Arithmetic

For the Beginner in Iris Arrangement

CRESCENT DERU, Utah

To make a successful arrangement of iris for indoors or the show you must make a satisfying picture. A working knowledge of the rules of good design, elementary geometry, and simple arithmetic will help. Iris are shunned by the florist and misused by the "Decoration Day" mass arranger. If you want to make an arrangement with iris, for heaven's sake, DON'T go out into the garden and cut every different colored iris bigger than a cabbage and arrange them by trimming the stems off even and poking them into a tall, decorated vase with asparagus fern or baby's breath! "Fluffing" them out won't help a bit. Neither should you put them in a basket and tie a ribbon on the handle or torture them to death with wire and tape in an effort to be "arty." The tall grace and rhythmic lines of the iris lend themselves easily to an arrangement in the contemporary manner which is somewhere between the extreme of Japanese severity and Victorian mass. Geometric forms such as the equilateral triangle, right angle, vertical and horizontal line, circle, and the lazy S curve so admired in Japanese arrangements are all made to order for iris arranging as the buds, flower and stem have such beautiful form and personality.

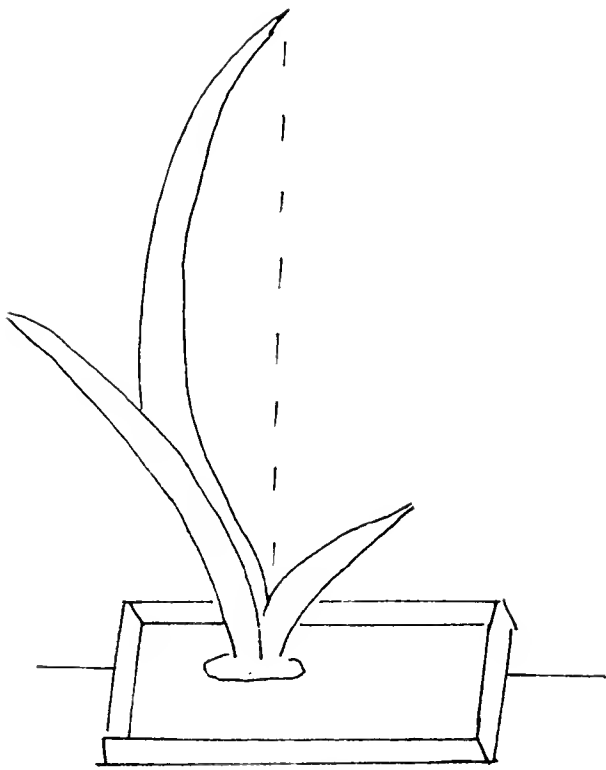
A pleasing arrangement doesn't just happen. As in any other form of beauty, the rules of good design, such as balance, color harmony, and good proportion in relation to the container and background must be interpreted. Avoid large, gawky flowers in clashing colors, and don't mix up the colors as you will get a messy, spotty effect. The eye can only see so many things at one time; so far up and down, and so far to the right and left. A variety-store window will give you an idea of what is meant—there are so many things clamoring for attention that the eye

really sees nothing with the first glance. To be beautiful, an arrangement must have a definite shape in which the lines carry the eye easily to the center of interest, which is close to the center and just above the rim of the container. This is the focal point where emphasis by contrasts in color, texture, flower size and shape will draw the eye like a magnet and call attention to the most important part of the design. Locate and place darker or more vivid flowers that will give the necessary visual, though imaginary, "weight" at this point so that the composition gives the feeling of stability and balance.

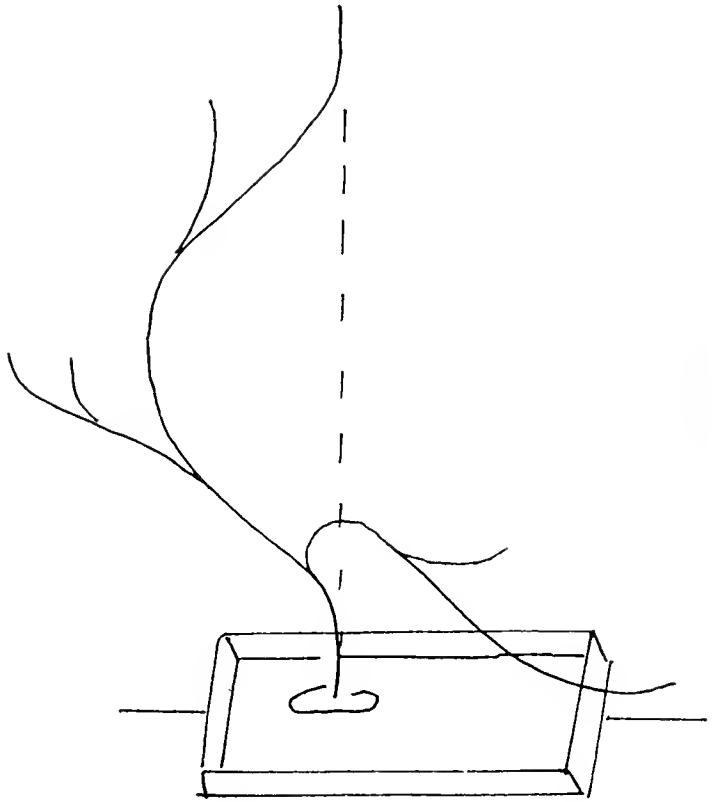
Don't use off-beat, highly polished or decorated containers. Beginners should leave "objects d'art" alone. Choose low bowls with simple round, oval and rectangular lines or tall pillow vases. There are many other simple containers with modified lines and functional uses such as pitchers, buckets, and so forth, that are admissible if the iris can be related to them in some way. Muted, complementary colors such as dull, putty, grey-green or blue and the earthy colors such as rose, beige, off-white and charcoal will not fight with the colors in the arrangement. Don't use accessories with water unless they like wet feet. If you want to use a figurine, create a background for it. Driftwood, weathered sagebrush and bare roots with interesting lines are permissible if used skillfully. However, as a rule, avoid using plant material that doesn't bloom and grow together. Don't team up iris and some exotic plant material that comes from another part of the globe. The color and shape of the container should be in harmony with the color of the iris.

Don't use the large specimens you grow for exhibition. Miniatures and Border types are tall-bearded iris better scaled to harmonize with other garden material and are more suitable in the average home surroundings. Breeders often find small-flowered iris in the seedling row that show subtle variations in tone and shade of the same color in a single cross. The true Miniatures or Table Iris, as they are often called, and the wider-petaled Border iris have the small size, character, and appeal especially adaptable to arrangements. To name a few, there is Spring Idyll (orchid), Columbine (white), of the old diploids and Yellow Dresden, Ethel Hope (lacy orchid) in the new Borders. Also there are the charming blue hybrids, Blue Fairy and Little Lake; and among the Miniatures there are PeWee, Widget, Warbler, and a host more that are charming for arrangements. Choose the dainty flowered and slender-stemmed iris. These iris are becoming very popular and breeders are making selections from their crosses that are being introduced especially for this purpose.

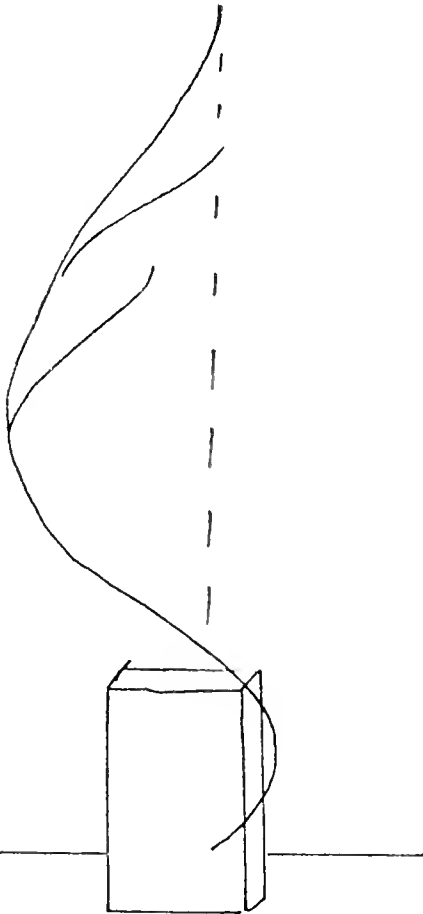
Flowers and shrubs that grow and bloom at the same time and give the greatest contrast in form and texture are Gas plant or Dictamnus, Allium and chives, variegated and plain leaf Hosta, ribbon grass, money plant, Mahonia, purple leaf plum, beech, barberry, rhubarb leaves, cotoneaster, beauty bush, spirea, daylilies, thalictrum, and there are many more. One must cultivate an eye for line and then you can "dig"



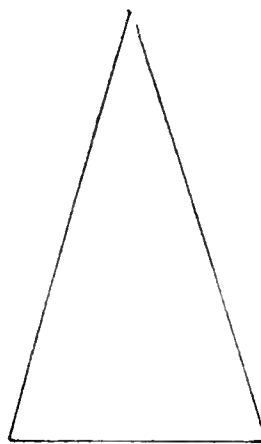
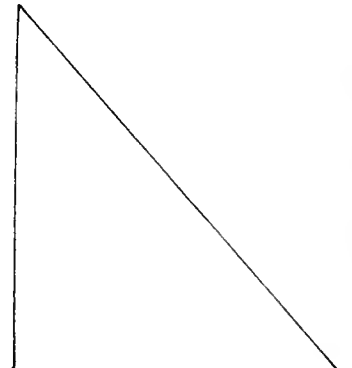
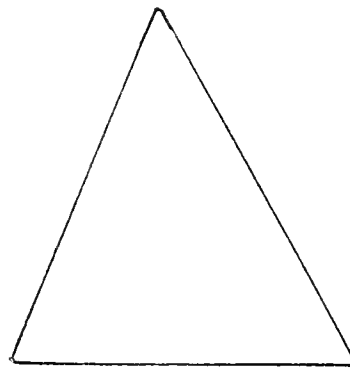
3 "Structural lines
on 3 levels



Driftwood



- Modernistic -
exaggerated line



Geometric Shapes

DERU



This artistic arrangement by Carl Starker features the new Schreiner iris, Whir of Lace, to be introduced in 1958. Notice the skillful use of foliage material of varying texture and the accessory which completes the basic triangular design.

those plants by the roadside, too, such as wild goat's beard, vervain, mullein, dock, fiddle-neck borage, and such, in all stages of growth. Many have the unusual texture that will awaken that irresistible desire to touch or "feel the goods" as velvet and satin do! When you are trying to make the arrangement let the beauty of plain green or striped iris leaves, buds, and half-opened flowers create the shape or silhouette.

Make a simple sketch of a geometric shape before you begin that will go along with the contour of the container. Try to relate the form and color and integrate the two by bringing some of the foliage over the rim. The severe lines of glass brick or pillow vases are softened by using the easy curves of the "lazy S." Buds, leaves, and stems "aspire and stretch" in pillow vases. Low bowls tranquilize. Horizontal lines are dependent on the form of the container such as that suggested by the conch-shell or similar naturalistic shape. Radiating or fan-shaped arrangements look well in a candy scale scoop. Whatever shape you choose to make the arrangement, keep it simple. Don't use too many flowers and keep the imaginary weight at the bottom and you can't get too far off the beam.

Have on hand an assortment of containers, wire and needle-point holders, florists clay to fix the holder to the bottom of a DRY container if the bowl is low. Use crumpled poultry wire and vermiculite in tall vases as they will not require much water and are easier to transport to a show. Lava, colored rocks and weathered tree knots disguise the holder.

Besides the rules of beauty and the geometry of form, the leaves and flowers are cut according to a mathematical formula. Measure the longest leaf or flower by the width of the bowl if the container is low, or by the height of the vase. The proportion is $1\frac{1}{2}$ times the diameter or height of the container; the second leaf or stem is $\frac{1}{2}$ the length of the first, and the third is $\frac{1}{2}$ the length of the second. These three levels constitute the basis on which any contemporary design in iris arrangement may be done. Place the longest leaf or stem far back in the holder so that the apex is in a direct line with the base. The stem of the second is in line with the first and goes on the left at a slight angle. The third stem is on the right and extends at a wider angle. These three leaves or stems should be close together so that they give the illusion of natural growth. Five and seven leaf arrangements follow these same lines. Place slightly shorter lengths in the pockets made by these three structural lines on these levels. Place slightly shorter lengths in the pockets made by these lines. Heavy, stiff stalks are not beautiful. Here is the place to take full advantage of the natural and purposeful curve of stems and the delightful face-up of the iris bud and flower. Arrangement iris should be cut ahead of time and "hardened" in deep water. During this hardening process, the stem, buds, and flowers will assume a graceful pose if placed at an angle overnight as they are phototropic. Flowers

and buds will face up and stems will curve as they normally grow. Use an odd number of leaves and flowers as it is more pleasing.

Now that's how to arrange iris in a beautiful way, but you can't forget color. A clash in color will sour the whole thing. Vivid color placed high in the arrangement will disrupt the scheme and balance. The best way to use iris is in a monochromatic color scheme. Harmony and emphasis is given the arrangement by selecting the tints and shades of the same hue in different values. Place buds and light colored iris at the top and concentrate the deep shades low to give emphasis and weight. Stand back to appraise the results critically and check for defects. Don't get nervous and over zealous. Have a little fun. Don't copy. It doesn't have to be a masterpiece. Self-assurance and aesthetic sensitivity will come after your "know your onions."

There is probably no other flower that will delight you so much to use for arrangements than iris. Besides, it can displace the orchid at a wedding! Dr. Odell Julander gave his daughter away in marriage during the peak of the iris season. The garden was well planned in advance for a picture under lights for the guests at the reception. A local florist with an adventurous soul was pressed into the duty of making the bridal bouquet, corsages, and table arrangements with iris. The florist found so much pleasure working with the flower that she gave it a personality of its own rather than substitute it for an orchid. In the bridal bouquet she used Truly Yours combined with lily of the Valley, and in this case the iris "had a lilt to its kilt," as Odell says, that no orchid could match. The mothers chose iris from the garden that harmonized or contrasted with their costumes and here again the corsage-maker excelled herself. Bridesmaids wore iris-green dresses and carried garden cutting-baskets filled with iris and daisies. Under artificial light it was an unforgettable picture. When this sort of thing can be planned and iris used so importantly, who gives a hoot about the high cost of orchids if we have a marriageable daughter?

Bulletins Available

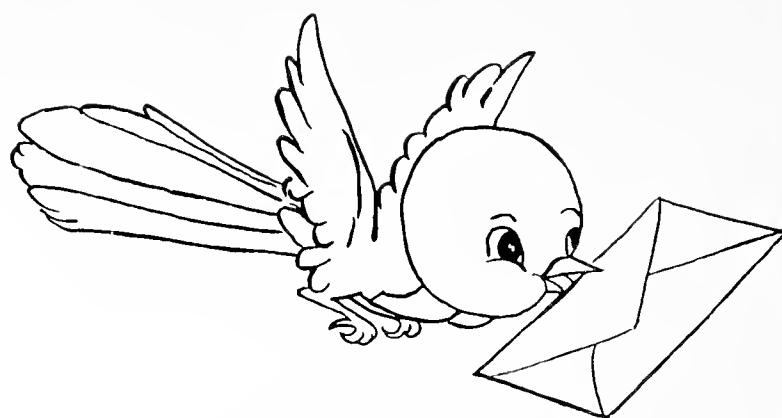
Anyone interested in acquiring the following list of Bulletins and other iris literature should contact Mrs. Ralph J. Moon, Star Route, Potrero Lane, Santa Barbara, Calif. Asking price for the collection is \$45.00 including postage in U.S.A.

AIS Bulletins: #32, 40, 44, 62, 65, 67, 68, 69, 70, 71, 72, 73 & Sup., 75, 76, 82, 84, 86, 87 to 144 inclusive.

The Salbach Iris Manual, *The Iris-an Ideal Hardy Perennial*, *Iris in the Little Garden* by Ella Porter McKinney, *Beauty from Bulbs* by John Scheepers, *The Iris* by N. Leslie Cave, *Irises* by Rockwell, AIS Alphabetical Check List 1939 and supplement, Utah's 1952 Year Book.

FLIGHT

BY PEGGY BURKE GREY
NONA B MOTT



INES

PROGRESS REPORT

Although it's scarcely a year old, our National Round Robin Program has continued to soar as if borne on eagle's wings. And since the last Bulletin another new Robin Division has been added, making a total of 18 separate fields of interest in which you, as an AIS member, are encouraged to become active. This latest addition is the Japanese Iris Division, and National Robin Director John Bartholomew has announced the appointment of Mrs. Troy R. Westmeyer of Stamford, Connecticut as Chairman. All of you who are interested in the Japanese irises are cordially invited to drop her a note and tell her you'd like to join one of her robins. Here's what she has to say for her initial report for Flight Lines:

"We now have 61 members and 7 robins flying. We're off to a slow but enthusiastic start, and we hope to have some interesting comments by next bulletin time!"

To show you what a whopping big project this Robin Program is, and the tremendous interest with which it has been received, take a look at these figures compiled by Director John:

<i>Division</i>	<i>Chairman</i>	<i>En-rolled</i>	<i>Robins</i>
Tall Bearded Iris	Clifford W. Benson 1201 Verle Place St. Louis 14, Mo.	469	44
Dwarf Iris	Walter Welch Middlebury, Ind.	62	7
Medians-General	Mrs. F. W. Warburton E. Main St. Westboro, Mass.	91	9
Intermediates	Mrs. R. E. Greenlee Rt. 3, Chrisman, Ill.	26	3
Lilliputs	Mrs. F. W. Warburton	6	1

Border Iris	Mrs. Bert Brickell	51	5
	Rt. 5, Box 103		
	Emporia, Kansas		
Arils	H. Valmar Slamova	51	6
	P. O. Box 606		
	Wildomar, Calif.		
Table Iris	Edwin Rundlett	94	10
	1 Fairview Pl.		
	Staten Island 14, N.Y.		
Remontants	Edwin Rundlett	52	5
Species & Natives	B. LeRoy Davidson	108	9
	905 Western Ave.		
	Seattle, Washington		
Spurias	Clarke Cosgrove	50	3
	8260 Longden Ave.		
	San Gabriel, Calif.		
International Robins	Mrs. John M. Price	24	3
	South Mountain Rd.		
	New City, N.Y.		
Hybridizing	Mrs. C. W. Vallette	305	30
	P. O. Box 154		
	Declo, Idaho		
Louisiana Iris	Charles W. Arny	47	6
	P. O. Box 511		
	Lafayette, La.		
Iris Photography	Mrs. C. L. Simmons	119	7
	501 E. Melbourne Ave.		
	Peoria, Ill.		
Japanese Iris	Mrs. Troy R. Westmeyer	61	7
	Gary Road		
	Stamford, Conn.		
Regional Robins	Mrs. Iris Smith	62	5
	P. O. Box 124		
	Hitchcock, Okla.		
TOTAL		1678	160

You'll notice we've listed the Divisional Chairmen's addresses once again so that any of you who would like to join a robin may have them for reference. And, in the Tall Bearded and Hybridizing Divisions, robin members who would like to assist the Chairman by volunteering to serve as Robin Directors would be welcomed with open arms!

Evansias around the World!!

The Evansia Robin in the Species and Natives Division has just finished its first round—around the world! Director Ben Hager is reporting in: Dorothy McCashin of Lower Hutt, New Zealand reports a cross of

I. lacustris x *I. speculatrix*. From her description of the plant and flower, it sounds like it might be a true cross, and she is planning further study of it plus sending plants to the States for consideration. We hope it is true.

Jean Stevens of Bastia Hill, New Zealand, makes some pointed remarks that every breeder who likes to make wide crosses should read several times and completely understand. "I registered astonishment at the Check List crosses of *I. delavayi* x *I. milesii*, *I. tenax* x *I. milesii*, and *I. milesii* x *I. forestii*. But I also registered doubt! Have these crosses been established as genuine, and if so what happened to them? I think we should find out before we offer this information as authentic. My experience has been that these reputed crosses often turn out to be that the seed parent flower was pollinated and later set seed to its own pollen, but if a pod forms the cross is asserted as made! If the hybrids of *milesii* are authentic why did not Dykes ever refer to them? Are they still in cultivation? If so, has a chromosome count been made? Until this has been checked, I think we should enter them with a question mark."

The crosses referred to by Mrs. Stevens are crosses registered by Amos Perry in the 1939 Check List of the AIS.

Two other remarks from Mrs. Stevens we find of interest: "*I. tectorum alba* (which comes true from seed if selfed) is best raised from seed. Seedlings are virus free and are much more vigorous." "*I. confusa* has proved less hardy than the more tropical-looking *I. wattii*."

James Stevens of Greenville, N.Y., tells the story behind his 1936 *Evansia* hybrid introduction, *Fairyland*. "When I first became interested in *Evansias* I could find but one other person who was working with them, Mr. S. S. Berry of Redlands, California. *I. japonica* and variety *Uwoda*, and *I. confusa* grew well for me in a cool greenhouse and I made crosses both ways. The seed was always planted as soon as ripe, germinated promptly, and the seedlings grew very readily. However, there was not much variation in size or color of bloom and the bamboo-like growth of *confusa* did not appear in any of the seedlings. I sent several to Mr. Berry and he named and registered *Fairyland* in 1936." Mr. Stevens continues to say that he later found that his *I. confusa* was not the plant *I. wattii* that he had supposed it to be, and which species was registered as the parent of *Fairyland*, so he obtained plants of the latter from England. They grew vigorously in a cool house, but could not be induced to bloom, even the second time with plants from a different source.

Sarah Tiffney, Sharon, Mass., gives us the most interesting reasons for her interest in the *Evansia* section: "I like the *Evansias*, among others, for several reasons. They are so lovely; they are different in effect and use; they bloom (some of them) at a season when others do not; they constitute an interesting scientific puzzle; they offer possibilities of something different and worth while in breeding."

Mrs. Tiffney draws our attention to a highly valuable bit of information: "Foster, in 'A Cyto-taxonomic Survey of the North American Species of Iris,' No. CXIX, Gray Herbarium, Cambridge, Mass., 1937, feels rather strongly that *lacustris* is a species distinct from *cristata*, on the basis of morphology, chromosomes, and distribution."

Dave Childs, Fair Oaks, Calif., states that the two *Evansia* species, *I. milesii* and *I. tectorum*, both forms, grew better for him in full sun and garden soil than they did in partial shade and leaf mould.

Roy Davidson, Seattle, Wash., sums up the group as a whole in regards to their scientific status: "As Dykes pointed out, the *Evansias* are a very variable and even poorly related group, seeming to be in the development of the genus *Iris*, somewhat midway between pogons and apogons. That they are poorly related to each other has been borne out in the chromosome counts. That *Evansias* are more nearly related to pogons than to apogons is assumed because of the hybrids that have risen between *tectorum* and various pogons."

Roy also reports that *I. japonica* will survive fairly cold winters out of doors for several years, but will not flower under such conditions.

It took this robin just ten months to fly around the world with a couple of rather lengthy rests. There are now twelve members and it is hoped that more requests will come in soon and a new robin will take its flight.

More World Traveling

The International Robin Division is gaining momentum, according to Molly Price. The second robin was airborne in August. The initial voyage of the third, due to the fact that its director had been dallying in Vermont, was held up until the first of October.

Now that we are three-parted, like our flower, there will be more news to report, for we are now truly round-the-world, landing on four continents and nine countries. One of us, an amateur, had fourteen thousand seedlings this past spring; some do no breeding. A couple of members are especially interested in bulbous irises. Some hybridize dwarfs, some medians. Most of us grow and breed tall bearded. Almost all of us are amateurs, but we do have professional growers among us.

Our climates vary from no frost: "Our seeds are never at freezing point, as we don't have frost or snow," to the frigid winters of Berlin, where of late they have been "very hard and open without snow, and with only 178 seedlings remaining from 3536."

A perhaps unique characteristic is that we enjoy two springs—one actual and one vicarious. Some of us go "North with the Spring"; for us Northerners the encore echoes sweetly at the year's end.

And in Lima, Peru, a member says: "Thank you again for the seeds. They are wonderful for me because we in Peru have only two types of irises, one white, the other blue (unnamed)."

Flutterings from Regional Wings

What's in store for you when you join a regional robin is enticingly previewed by Robin Editor Jim Aultz of Huntington, West Virginia, who sent in the very first report from the Regional Davision!



"Now who could be sending me a small book?" I wondered. The bulky envelope just deposited in our mail basket could surely be nothing less. A quick glance at the return address, a flash of intuition—a long-awaited Robin #2 had reached me in its flight through Region 4!

Nine newsy letters, two beautiful Bulletins from the very active North Carolina Iris Society, one fine color slide of a new iris garden in High Point, N.C., which its owner, Harold Alexander, fondly calls "Dreamland," and one personal snapshot, were my "Inheritance" for the evening, and until such time as I could add another letter of my own. I recalled, then, that our hard-working director, Ernestine Jones, had asked me to edit this flight for the AIS Bulletin, before I sent Robin promptly a-winging once more, this time down Virginia-way.

Our flight members include members from Maryland, Virginia, North Carolina, and West Virginia. Included among our ranks are four accredited judges: Annie Overstreet from Vinton, Va., RVP Walter J. Smith from Norfolk, Va., Harold Alexander and Ernestine. No shy violets here either (not in an iris robin!).

Each writer has been asked to include a list of iris he personally grows, together with varietal comments. The newcomer in our Robin can know what iris are worth growing and what to expect of them in the way of performance. The knowledge of some in our region who have a world of experience in iris growing is at his fingertips for the asking. If it's actual plants he wants, swaps can be arranged by individuals, although this is not a function of the Robin itself. For the hybridizing enthusiast, there is plenty of help to be found in the letters on that subject.

These thoughts have been expressed before but are worth repeating: For those who like to write and who love iris, membership in at least one Robin is a *must*. Rules are kept to a minimum; there's no limit to the fun and enjoyment to be had from such an activity.

Tall Bearded Tips

In the Tall Bearded iris robins the two most general lines of comment seemed to be on seed-setting and the advisability of late summer planting.

On the former subject Harry L. Hipp, Calhoun, La., says: "Just now I am trying to break dormancy in iris seed. After drying two weeks, I soaked 12 seed in concentrated sulfuric acid for one hour, then stored in the freezer for 24 hours, then to the refrigerator for two weeks. After the seeds come out of the refrigerator they are planted in a flower pot.

Last year I soaked the seed in the acid and it gave 12 seedlings for 12 seed on those treated for one hour, but of those treated for 1 1/2 hours only three of the 12 germinated. Those treated for 30 minutes were about 75%. If any of you want to try this, be sure and use glass containers and don't get the acid on your skin; it is hot!

Lee Eberhardt, Springfield, Ohio: "I notice quite a few comments regarding lack of bloom on first year plantings. I have been of the opinion for quite a while that lack of bloom is due to planting rhizomes that have been dug before they have developed sufficient or strong enough side shoots."

Helen Chariott, Moylan, Pa., comments: "This year after talking to Oliver Holton I decided to have all new ones sent after August 20. He feels those sent later have more time to establish bloom shoots. Last season one rhizome of Ruffled Taffeta from out west was soft and looked very bad. The grower replaced it in late August and this was the only one of three of this variety to bloom."

Jim Aultz, Huntington, W. Va., says: "My experience this past summer was that earlier plantings seemed to stand still, while those made in late August were showing new growth early in September. So I intend to restrain myself with regard to early planting next season—restrain myself until late August, that is!)"

Mrs. Otis McMurray, Pittsburgh, Kansas, notes: "I like to plant rhizomes here in September or October. They seem to bloom much better and I do not have to water during the hot summers."

Cultural Tips

Mrs. Joseph A. Campbell, Schwenksville, Pa., comments: "Most of the iris are in perennial beds; they are well-mulched. We have loads of white pine needles and I have found them most satisfactory as a mulch, being careful not to cover the rhizome itself."

"Slim Burns of Concord, Tennessee, piles old leaves, grass, weeds, anything, in a trench and puts his iris over it. His results have to be seen to be believed!" says V. H. Kiplinger, Kingston, Tenn.

C. W. Fenninger, Philadelphia, Pa. states: "Humus is used a lot. Compost piles are enclosed in cinder blocks three feet high, not cemented so they may be pulled apart for cleaning. The holes are open to the side to allow for air circulation."

Bennett C. Jones, Portland, Ore.: "I have begun to use gypsum here this year after having had it recommended by several persons. I broadcast, then till it into the ground to begin with. Later, on advice from others, I will give each plant a heavy dusting. Will keep Agrimycin on hand too as it saved several plants for me this year."

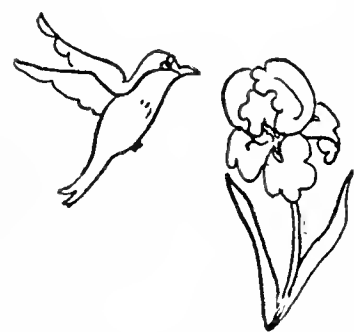
A Note on Rot

From Mrs. Carl F. Volland, Zanesville, Ohio: "While one kind of soft rot occurs very early in spring, I have another kind that doesn't seem

to start until about blooming season. It seems to attack iris that were set out the previous summer. The rhizome seems to be dry and spongy and the leaves die. The first time that happened was two years ago and the iris was Belle Amie. This spring it was Raspberry Ribbon, Eastermohr, and Sunray, all three set out last summer. By the time I discovered it, Eastermohr had just one little fan on it, and the last fan of the Raspberry Ribbon had just folded up. Sunray wasn't quite so bad. I dug the soil away from the rhizomes and covered the entire plant and soil with gypsum. For several weeks nothing happened and then, finally, the fan on Eastermohr started to grow. For several weeks more I couldn't see a trace of Raspberry Ribbon. Finally a little shoot came through and it has now grown quite a bit and I feel it will live. I used this same treatment on Belle Amie two years ago and this year it bloomed nicely."



Fragrance



"Casual observation would lead me to think that the violets, purples, blue-violets, and some whites and plicatas are the most sweet-scented; while some yellows, browns, and certain whites like pretty little Samite (Whiting '52, a 26" plant) have an unpleasant 'skunky' odor, especially when brought inside. Caprice has that delightful grape-jelly smell, inside or in the garden." Erna Bert Nelson, Spokane, Washington.

Jean Witt, Seattle, Washington: "Iris don't all have the same odor, by any means. Spotless, the white Hoogiana hybrid, has a delightful fragrance, reminiscent of our little wild Calypso orchid, amazingly distinct from the strong grapiness of Zwanenburg, for instance."

A Note from Maine

Alice and Schuyler Sampson, Portland, Maine, report: "In spite of the wide-spread fame of our long, hard winters, we have less trouble than friends who have gardens near Boston. We get a steady cold and more constant snow cover, little freezing and thawing. However, we do not attempt to grow onco-breds. We grow such tall-bearded iris as Lady Mohr, Elmohr, and Snow Flurry with erratic success. They flower spectacularly every other year, then make little or no new growth after blossoming. Evidently, our short, cool growing season is a more serious handicap than our severe winters. Of course, we have excellent drainage, which we assist by growing the tall bearded iris in raised beds, with the dwarfs in rock borders."

Delightful Dwarfs



Walter Welch, Middlebury, Indiana: "You will have no problems in growing the dwarfs because of cold winters. David Saunders up in British Columbia has winters down to 50 degrees below zero and has fine

results. Poor drainage causes more loss of dwarfs than any other cause. If they get good drainage, a reasonable amount of sunshine, and dividing when they get crowded, they will perform nicely."

Leona Mahood, Seattle, Wash., reviews some of the thrilling moments of dwarf season in her garden this past season: "It was a real joy when Grandma's Hat bloomed much better than ever before. This year its colors were much deeper, and clearer. They had lost some of the smokiness which is so characteristic of Blue Mascot seedlings. It has fine form, too. The horizontal falls terminate in curving dips at the tip. In fact, Grandma's Hat turned out to be quite a modish chapeau, though certainly not the dowager type. It's one of those wide, ripple-brimmed garden hats that she used to wear to afternoon teas."

"For some reason," Leona notes, "Dream Child didn't display her usual pretty colors last spring. Probably that old villain 'Weather' can be blamed. Her little Dirty Face brother was one of the biggest hits in the garden, a fine clear green with excellent form. If green like that is dirty face I hate to think what other greens might be. Yet Dirty Face must have been quite different in some gardens. When numerous visitors in Walter Welch's garden were arguing for him to introduce it, Walter just laughed and said no one would want such a little dirty face. Now I think it's fun to find a sprightly little Dirty Face rascal peppering up the crowd of dwarf iris children at April's birthday party. Even a bit enchanting to find a Dream Child who occasionally misbehaves!"

"Blue Frost is a real beauty," Leona remarks. "And still more frost was welcome in the dwarf patch this year. Star Frost, a tiny thing in pale yellow with its widely flaring falls, just touched with frosty white around the edges, was a delightful thing. I hope it will be a trifle larger after becoming well established."

Bennett Jones reflects on the past season: "I am impressed with the quality of the iris Helen Doriot has introduced to date. Red Amethyst, for instance. If it will flower in your garden next spring you have only to pick a blossom to discover one of the most perfectly formed flowers you will ever see. Add to this the breeding possibilities, it being the only red pumila, and you'll have something to think about. I tried using its pollen on Red Gem with no luck."

George Beach, Lake Forest, Ill., speculates about the future results of a couple of crosses he has made with Tall pollen on Lilliputs: "Over the years, because Zantha is an early bloomer, and I am impatient to do some hybridizing, I have used this massive yellow quite a lot in my pollinating. Looking over my seedlings, I was quite surprised to find that I have several prospering seedlings from these crosses: Geddes Douglas' 1001-A x Zantha and Small Wonder x Zantha. The latter, at least, is somewhat like crossing a Great Dane with a Cocker Spaniel. What do you suppose the end result will be?"



Median Tidbits

Notes on Median fertilities: "The Lilliput/chamaeiris were a big surprise. Out of hundreds of them there wasn't a stamen with good fluffy pollen. Fitz says they carry a gene for aborted stamens. Most of them came from Lilliputs without pollen (Baria, Fairy Flax, Lilliput) crossed with the white chamaeirises, Whitone, Bouquet, Welch J-537. Seedlings from the blue Lilliputs by these white chamaes had some of the smoothest color I've ever seen, and some most unusual colors. Most were in blues, selfs, or bitones, or in white selfs or blue amoena or Pinnacle patterns, but there was one very smooth pale aqua-blue and one a glistening wood-rose color. The finish was just like satin, but they were of thin substance and imperfect form, and their having no pollen gave me a feeling of deep frustration." Bee Warburton, Mass.

"The progeny from the tall pink seedling by Nana ranged in height from one 8 inches tall with no branching up to 17 inches with branching. The flowers were all about the size of Green Spot or smaller and were in all shades of rose and yellow, also tan, with the spot and without it. These C-6 progeny are all fertile both ways. All of the C-2 seedlings from (Snow Flurry x Cook 1546) are spollen sterile like Snow Flurry.

I think it is the tall used in the Median cross that makes so many of the 40 chromosome pot hybrids sterile one way or the other. We should be careful to select tall that are fertile both ways for Medians to be used in the pot." Grace Guenther, Iowa.

"The best lot I had were from 4901, violet remontant chamaeiris, by M-5510, yellow from (Mitchell 0-50 x Carpathia). Five bloomed. Two were light yellows, one with excellent substance, the other fair; three were light violet stands and darker falls with velvety reddish spots, and these were fertile among themselves. I'm hoping to get a Median remon-tant from 4901. It isn't pretty, but it surely does remont!" Dorothy Dennis, N. J.

"The 44's derived from crossing tall-pumila 40's with tetraploid tall 48's actually are at times quite fertile. Take, for instance, the following cross: Rosy Veil x (Tell's Garnet Treasure x Mary Randall). I crossed twice and obtained two pods that gave a total of 76 plump and promising seeds. Then again, ((Pink Camoe x Strathmore) x (Garnet Treasure x Mary Randall)) gave 35 plump seeds. These might give pink Medians. These 44's may prove just as versatile as those in the 40 chromosome pot. Maybe the Border Iris group can be built up from them, too." Edwin Rundlett, N. Y.

A further note on the new seedlings: "There were so many lovely seedlings in the Median rows that I was bewildered. I had 32 plants of (Baria x Limelight) and pulled out only four of them. All had such nice heavy substance, nice ruffling and flaring falls, simply breathtaking. Most of them were clear yellow near the color of Limelight but one was a lovely rosy brown with a darker spot. Most of them had one branch but I made a special note of the ones that had two. It seems

that their bloom was very short so I suppose one of the qualities we should watch for is more branches and buds per stem. The above cross and (Baria x Bryce Canyon) gave better things than the ones with Baria crossed to the pinks; and it seems that yellow was the dominant color in all of these Baria crosses.

“One of the best crosses in the Medians was (Azure Skies x h-503). From the 46 plants I pulled 4 that were not of good quality. So many lovely blues with darker spots and whites with green spots. I just loved every one of them and so did all of the vistsors.” Alta Brown, Washington.

For New Table Iris

Irene Van deWater has some noteworthy advice to breeders who are interested in the Miniature Tall Bearded: “To produce a new table iris, first acquire all of the table iris you can. Evaluate them and decide which one or two you would prefer to work with as parent stock. Then beg, borrow, or buy as many of those iris as you can. Too many of us waste years of time because we have only one plant to start with. Ideally, for an initial exploratory cross, you should get at least 200 seeds, in order to obtain at least 100 seedlings from that particular cross.

“When the seedlings bloom, take careful descriptive notes on *all* of their characteristics, not only the colors. Then you will be an authority on this cross and will have added to our knowledge of the parent iris, if you will work up your notes into a reportable table of characteristics and share them with anyone interested.

“With this crop of seedlings, you again evaluate and choose the few best as parent stock. Four types of crosses are now in order; self the best, sib the two best, and backcross to each parent.”

Crescent Deru, Ogden, Utah warns that while Flora Zenor and Melitza give small things, they also give poor form and other bad faults. She reports that Overture gives small iris; also Grand Canyon x Tobacco Road, and Mexico x Far West. Old diploid Shekinah has been reported from several sources as giving small things.



The Rebloomers

Z. G. Benson, Wichita Falls, Texas: “With all its rain, rot, and black spot, blooming season has come and gone. I was like the man that had no shoes and complained until he met a fellow that had no feet. I felt I was the only one that was having trouble until the robin arrived.”

David Flesh, Jefferson, Texas: “Most of this year’s work was “Gone With the Wind” . . . Texas twisters accompanied by destructive wind and hail. I was able to make some difficult crosses this spring, several of which I had previously tried without success. Everyone has said that Lady Mohr pollen will not set seed on either tall bearded or on onco-breds, but I had some good takes with it on several crosses, even on some of my remontants. These hard-to-get seed pods are now destroyed by the storms. I saved a few takes using pollen of Green Pastures on

Lady Mohr and I have a few pods on Joseph's Mantle by Mt. Timp, Martie Everest, and Tournament Queen. I lost about eight pods, with fine healthy sets on Western Hills by Joseph's Mantel, Berkeley Gold, Gibson Girl, Martie Everest, and October Blaze.

"Through correspondence with other hybridizers, I have learned that many iris varieties will transmit a recessive remontant tendency to their offspring, when a proper cross is made, with those of a like tendency. Among these are Berkeley Gold, which sometimes reblooms here, Tiffany, China Maid, Royal Scot, Ola Kala, and Sally Ann. There will be still others brought to light by the progress of our robin members, as time goes on, and we should watch for them. The most reliable path to follow is to use those parents which are strongly remontant, employing these as both pollen and seed parents. You will not find too many fertile in this category."

Mrs. W. W. Hellams, Columbia, South Carolina: "Slick lines on some of the remontants made me think there might be borers present. Early in July we began experimenting with Systoban (Chemical Formulators, Inc., Box 26, Nitro, West Va.). Systoban is applied 1 ounce to each 18" plant at the roots. The theory is that the plant assimilates the insecticide and all insects that chew and suck on the plants will be killed. Its effectiveness expires within three weeks. For five days after Systoban is applied, the plants cannot be handled because the poison is so deadly. When Systoban was applied to two rows of iris, Encore was in bud and bloom. All flowers that were in the bud stage were badly mottled and the petals were somewhat deformed. We sprayed one rhizome of Autumn Queen with Mira Cell (gibrel). The first flower, on the sprayed rhizome, was at least two weeks earlier than the first bloom on an unsprayed rhizome. No change in height."

Mrs. Frances H. Winkler, Hamden, Conn.: "At the Glen Head Iris Show, Double Date outshone all the others on the remontant table and even looked good among all the fine tall bearded once-bloomers."

"One of the local group who has a rather large planting in Madison, Conn., says a lot of California iris bloom for him in the fall he gets them but after that are strictly spring bloomers only."

Edwin Rundlett, New York: "Nona B Mott of Hereford, Arizona, tells of a big white reblooming seedling that she has produced. Arizona being a warm climate may make the difference here. I have some remontant *plicata* seedlings that are nearly good enough to introduce. Also made a cross of the Table Iris, Siskin, with pollen from *species variegata*. The seedlings bloomed this year, and one rebloomed on two occasions since then. Ola Kala parentage seems to pass the reblooming tendency on to some of its seedlings. October Gold and Summer Sun both have Ola Kala in their parentage. Remontant Iris which have bloomed for me so far in 1957, starting July 14, are: Autumn Afternoon, August Waves, Barre Beauty, September Sparkler, Southland, Autumn Bronze, Autumn Twilight, Fall Primrose, Lugano, Polar King, and Pottawatomie."

Mildred Primos, Mississippi: "I have Autumn Twilight, September Sparkler, Hit Parade, Pottawatomi, Autumn Haze, Black Magic, Surefire (blooming now in September, 1957), Lt. De Chavagnac, who is about to bloom. Also a clump of Pink Pinafore has been blooming for about two weeks, and still has more bloom stalks coming in."

Clarency Allen, Idaho: "Since joining the robin I have purchased 20 remontant iris from Spokane, Washington. Being from about the same climate range they should do equally well here. They are: October Blaze, Ethel Peckham, Cryso, Equinox, Dorcas Hutcheson, Autumn Surprise, Autumn King, Autumn Queen, Surefire, White Autumn King, Southland, September Skies, Martie Everest, Sangreal, Lt. Chavagnac, Golden Cataract, Black Magic, Eleanor Roosevelt, Gibson Girl, and October Opera. Joseph's Mantle has bloomed only once a year here."

Mrs. Carl F. Volland, Zanesville, Ohio: "All of the remontants except Ultra bloomed this spring. There were several bloom stalks on Ultra very early. After a couple of weeks, when there seemed to be no more progress toward the blooms opening, I opened the bloom stalks and found there was no bloom inside. What causes that? Ultra didn't bloom last spring but it bloomed beautifully in the fall. August Waves seems to be a persistent bloomer. It bloomed first May 5, and now in June is putting up another bloom."

General information on remontants affords the following conclusions: That good feeding and generous watering after the spring blooming season will give them the boost they need toward twice-blooming. Some act temperamentally and refuse to bloom anyway. Others, not generally remontant, bloom without reason. Selective hybridizing should soon produce remarkable results for the remontants.

Spuria Robin Excerpts

Mrs. Ila Nunn, Houston, Texas

"I am interested in inter-species crosses; spuria x Louisiana, etc. I can't see any good reason for crossing pseudacorus and spuria unless maybe for disease resistance.

"I have had pseudacorus for 11 years and it grows along with the Louisianas, never crossing in nature. So I doubt if it can be crossed. I am also skeptical of Louisiana-spuria crosses but can see real reason for trying. The good reds, pinks, and purples in Louisianas would do wonders for the spuria color range.

"Good varieties in the test garden were

Golden Branch, a two-branched variety in light chrome yellow.

Driftwood, chocolate-brown with yellow center stripe, larger and livelier than Blackpoint.

Blue Nightshade, dark blue-violet and rich brown with deep yellow.

Blackpoint, prolific and early and free from virus and had the blackest buds, but still does not excel Cherokee Chief.

White Crane and White Heron were grown side by side and do

have definite differences in haft marking, flare, and color and size of signal patch.”

* * * *

George R. Beach, Jr., Lake Forest, Illinois, grows spurias easily but is frustrated in hybridizing, as they seem always to self pollinate. On tearing open a bud the pollen is so moist and clinging there is rarely any to wipe off on the stigmatic lip. “Should the pollen bearing anthers be dried out in dessicator before use?”

* * * *

Mrs. Helen Frey, Belton, Texas

“I have always used anthers from a bloom which opened naturally so the pollen would be dry; so I ask “Why should the pollen come from a hand opened bud?”

* * *

Ben Hager, Modesto, California

“I am most interested in interspecies crosses with spurias and hope such crosses can be made. In spite of records of such crosses there has been no real evidence that such have been TRUE crosses.

“Remember this in observing seedlings from interspecies crosses; any true seedling from such a cross will show characteristics of BOTH parents, usually in about equal ratio.

“We made quite a lot of crosses between the spurias and Louisianas this year. None with Louisianas as pod parents gave any pods, (all flowers in all crosses were emasculated while still in bud). We got several pods with the spurias as pod parents. Those seeds have germinated and we are already quite sure that they are NOT true crosses but open spuria crosses in spite of emasculation. The seedlings look like other pure spuria seedlings.

“If you are interested in true crosses with the spurias, there is only one way to get them and it is a lot of work. First spray the plants with chlordane to keep away the ants and other insects which are probably the worst pollenizers of spurias, because of the excessive nectar they produce. Then choose buds that are beginning to swell and open them, tearing off at least the falls, probably all petals would be better removed. Slip a polyethylene bag over the remains of the flower and secure at the bottom so no insects can crawl up the stem. Next day the stigmas should be receptive and pollenization can be made. Replace the bag and leave for at least 3 days before removing. The pollen of spurias is so fine that I think it quite likely that airborne pollenization could take place without using the bags. Self-pollenization is almost assured if the flower opens, as the anthers dehisce even before the bud releases the petals.

“We had very good success this year with picking the pods just as they began to split and planting the seed immediately. All seed were up by fall.

“In collecting spurias, first on the list should be Wadi Zem Zem and White Heron, Morningtide when you can afford it; Lark Song and

Dutch Defiance, the Washington varieties, Monteagle and Ben Lomond, then Premier, A. J. Balfour and Lord Wolsey and Cambridge Blue, Walker's Canary Island, Yellow Swallowtail, Craig's Investment, and Sunnyside.

ARIL SOCIETY CONTEMPLATES 1958 YEAR BOOK

H. VALMAR SLAMOVA

THE ARIL SOCIETY (International) which passed its second birthday on Nov. 19, 1957, has its first Year Book in preparation for release in the early spring of 1958.

The recent increase in popularity of the Aril and Aril-bred Iris has been reflected in the steadily growing membership and the mounting interest of this specialty group.

Included in its membership are growers and hybridizers from several foreign countries and its roster is a veritable Who's-Who of the world's famous in the fanciers of this most exotic plant.

While a complete summary of the contents of the Year Book is not feasible at the present writing, a few of the subjects follow.

A profile of C. G. White and his work with the Arils—Tom Craig; rainfall and soil conditions in Israel—Zvi Ginsburg; a visit to Aril habitats—Dr. Peter Werckmeister; a list and comments on newer Aril bred iris—Jennie Hopson; preparation of an Aril Check list—B. Leroy Davidson; a list of species and descriptions—H. Valmar Slamova; the classification of an Aril bred iris—The Aril Society cultural notes, various members.

The annual Membership Dues are \$3.00 (Family, \$4.00) which includes the periodic News-Letters and the Annual Publication. The Year Book alone is \$1.50. Information may be had from Tom Wilkes, Secy. 10607 MaryBell, Sunland, Calif.

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Massachusetts Horticultural Society Awards Gold Medal to Dr. R. E. Kleinsorge

The Massachusetts Horticultural Society has awarded its large gold medal to Dr. Rudolph E. Kleinsorge.

He is a practicing physician in Silverton, Oregon, and a member of the State Board of Higher Education. He has been breeding irises for over thirty-five years. His introductions are well known, and he produced many Award of Merit irises.

In 1944, The American Iris Society awarded him the Hybridizers' Medal, his Sunset Blaze received the President's Cup in 1949 and the British Iris Society awarded him the Foster Memorial Plaque in 1950.

Glorieta Iris Project

RUTH PRESSEY, N. M.

The New Mexico Iris Society (AIS Region #23) has undertaken to collect and supervise the planting of as many iris varieties as is possible in connection with the development of extensive gardens in the grounds of the Glorieta Baptist Assembly at Glorieta, New Mexico. These gardens are located some twenty miles east of Santa Fe, some ninety miles north and east of Albuquerque. Here twenty acres of hillside have been terraced and landscaped with native rock and conifers. Mr. Cecil Pragnell, landscape architect for the Assembly, has the ground work all done. Walls are built, the underground watering system is in operation, tufa (pumice) by the ton has been dug in to insure proper drainage, and his plans for the seven terraces include Rose gardens, a Poet's garden, a New Mexico garden of native flora, and a Missionaries' Garden, among others. But on the fourth terrace and extending from the pool at the bottom of the seven tiers to the Prayer Garden at the top where white iris are featured at the request of the young people of the Assembly, are iris and more iris.

There are 24 iris plots in place (not complete yet to be sure), but the plans include comprehensive plantings of tall bearded by color, as tan through brown, violet through purple, cream through orange, sky blue through black, with gardens of classified Arils and Arilbreds; the Dykes winners; seedling test gardens, a full history of the red-bearded; medians, dwarfs, bulbous, native missouriensis, table iris and Spurias, Siberians and water-loving species. The 100 favorites will be reorganized each year to keep the plot up to date. New Mexico irisarians have given of all from their gardens, which could possibly be divided, and will continue to share each year whatever more becomes available.

Donations Solicited

The last plot to be added is the "Originators" or "Hybridizers" Plot, where friendly growers are to be featured as well as their donations. In this plot a stake will bear the name and town of the originator and this sign will be circled by the five creations he or she feels best display his accomplishments. Put into operation late in 1957 to be further developed in 1958, the response to requests for donations for display has been wonderfully gratifying, with 1956 and 1957 introductions being sent or promised, so that the list of contributors sounds like a list of iris "greats." The varieties of this plot will be handled as "guest" iris. It is hoped that this plan will put on display the newer creations to enable gardeners in this remote area to study and evaluate material sooner than might otherwise be possible, and as some 20,000 visitors are expected to see Glorieta in 1958, it should prove of advantage to any hybridizer.

A permanent committee for the Iris Gardens has been set up with your correspondent as General Chairman; Dr. Harry P. Stagg, Executive

Secretary of the Baptist Convention of New Mexico and Dr. E. A. Herron, General Manager of the Assembly as members from the Assembly; and Mr. Wade Palmer, President NMIS and Mrs. Earl Mount, AIS Judge from the NMIS. The iris project itself is a non-denominational undertaking.

The offer of the young NMIS to place the gardens has been used by Mr. Pragnell in obtaining 4,500 roses from Texas, 2,000 peonies from Oklahoma, and 10,000 daylilies to add to the already extensive plantings which include thousands of tuberous begonias which make an incredible and unexpected display in these New Mexico mountains.

NMIS solicits the co-operation of iris growers and AIS members everywhere for new or older material. Since it is impossible to contact each personally, this is an invitation to each to be featured in these glorious Glorieta gardens. Make this your project too, for 1958.

All materials are checked, listed, and delivered through Mrs. Ruth Pressey, General Chairman, 2421 Pueblo Bonito Dr., N.W., Albuquerque, New Mexico.

Median Test Garden Impressions

EARL ROBERTS, Ind.

As we look back on the second blooming season of the Central Median Iris Test Garden at Indianapolis, we are impressed with the rapid progress being made in this new field of hybridizing and the vast improvements over the older Intermediates of yesteryear. During this second blooming season the iris originally planted here in 1955 have made considerable clumps, for the most part, and the number of stalks as well as quality of bloom was considered more normal than during 1956 blooming. The earliest of the Medians to flower here were, generally, the Lilliput Hybrids. The season was approximately 10 days late this year, so that the first blooms began about April 25th. The peak of bloom for this group of iris, was around the first of May. The second group of Medians, the Intermediates, started blooming around May 2nd, with peak period about the 8th. This is about normal for this group since they are naturally hybrids of the dwarfs and tall and should bloom in between the two types. The Miniature Tall Bearded (Table Iris) group and the Border iris flower right along with the tall, from early to late.

One of the greatest rewards in operating a Test Garden is to see and hear the expressions of delight and astonishment upon viewing at first hand one of those long-sought species iris, or the glowing beauty of a new seedling. This spring we were so busy in moving into the new place that records were not kept as accurately as possible on the various new seedlings. Neither did we have a Guest Book for the visitors to register, but hope to next year. We can recall at least nine AIS Judges who were here to see the bloom and three of these returned several times. It is probable that more came through while we were at work.

Realizing that we would be unable to be present at all times during the bloom season, we tried to make it as easy as possible to find different iris by use of labels. Our lot is 168 feet wide by 660 feet long, something over 2 1/2 acres, with the length of it running East and West. The Test Garden itself is in the center of this area on the north edge, close to our neighbor's apple orchard, (and delicious apples they are, believe me). This area was divided into ten beds, each about 60 feet long and two rows wide, with a single row devoted to iris species making the 11th bed. Each bed is marked with bright yellow stakes boldly labeled in contrasting colors by use of stencils provided by our able helper, Robert Welshans. All of the Median iris types are identified at the head of each row: Lilliputs, Intermediates, Oncomeds, Tables, Border, Species, Seedlings, and Antiques. Names of hybridizers who have sent seedlings or Guest iris are also plainly labeled on yellow stakes placed in the Seedling rows where planted. Then each individual plant is also labeled as to name or parentage by use of white plastic labels on wire stakes. In this respect it should be noted that plastic labels are quite brittle and subject to breakage if handled roughly, but were chosen because of their easy readability and once labeled, that name is on to stay. It can only be erased by vigorous use of scouring powder.

Aphylla Crosses Made

Among the species iris blooming this year we especially liked the one Hanselmayer calls Aphylla Taochia. This aphylla was a reddish-purple self with a bright blue beard, about 11 inches tall, size of flower 3 inches by 3 inches, excellent substance, standards cupped, falls semi-drooping, with overall very good form, hafts showing a few white lines, slim stem with two branches, one of these at the rhizome, a very vigorous plant. Two flowers produced seed pods; 37 seeds from the true *I. balkana* pollen so kindly given us by Helen Doriot at Goshen, and 34 seeds from Dr. Randolph's seedling of (Sky Above x Progenitor). Both of these crosses should produce fertile tetraploid seedlings.

Another Hanselmayer gift was labeled Talyschy or Talyschii, the yellow form showing some greenish lines in the falls, yellow beard, and rather poor form, 16 inches tall with two branches having three buds each and four buds at the terminal, total 10. This form looks much like the species *Imbricata*. The other form of Talyschy was a deep purple, also 16 inches tall, but three wide branches coming directly from the rhizome making it resemble a taller aphylla. This type produced full pods of seeds when crossed with Thisbe, a 48 chromosome aphylla. A letter from Mr. Hanselmayer this summer advises that this purple form is not the true Talyschii, but the species A 15 from the Lemperg Collection, similar to a tall aphylla. A chromosome count is indicated here and we hope to get a plant off to Dr. Randolph this coming spring. These species bloom about the first week in May to the middle of May.

One of the loveliest new colors in Median iris was seen this spring in Mrs. Greenlee's First Lilac. Parentage is rather involved as it comes from a Lilliput seedling crossed with Cloud Castle, then that seedling selfed. The name describes the color, a beautiful true lilac set off by a bright orange beard, excellent substance and form, flaring falls, and slim stem. Among the more unusual novelties was Ron Chamberlain's 55-1-M which is highly recommended for registration. Parentage is Sound Money x Eunice, and coloring impossible to describe but the falls were striped like a tiger. We got a big kick from Ed Zickler's impression of this one. He studied it for several minutes, then said, "I don't like it," and walked away. In less than two minutes he was back again looking at it. "I don't like it; but if I had it I sure wouldn't throw it away." Next thing I knew he was down on the ground with his camera getting a close-up at about eight inches. This made a beautiful slide and Ed's slides are tops in any man's language.

Hill's ((Chamaeiris x Arenaria) X Tall Bearded) gave a beautiful Wabash type flower in the size of a Miniature Tall Bearded and should have been named long ago. Helen Doriot's seedling of (J529 x L547) was a unique greenish blend, the only iris yet seen that I would be willing to call a greenish blend, and very fine flaring form. We hope she introduces this one because of its unusual coloring alone. Walter Welch's M529 from a bee pod on Fairy Flax gave a very lovely ivory type Lilliput, a new color in this class. Paul Cook's 9255 and 9655 were both very blue and very late, starting to bloom along with the tall. Parentage is ((Sky Above x 6048: a blue sib to Fairy Flax) X Sky Above). We noted a whole row of this type of cross at his home garden that were in full bloom at the peak of the tall season. In the Bee Warburton seedlings we particularly liked her A-304, a very smooth red from (Garden Flame x red-violet pumila).

Several new types of hybrids have been produced in our own seedling patch. This year the first of the tall bearded/aphylla seedlings bloomed here. B-702 from Pink Formal X Thisbe gave a 15 inch plant with two branches at 5 and 9 inches, 4 buds, a light rosy-purple color with yellow-orange beard, fairly good form with domed standards and straight hanging falls, size of flower 3 inches x 3 1/2 inches high, spathes flushed purple and inflated like aphylla. This has been counted by Dr. Randolph's co-worker, Mitra, as having 49 chromosomes. Seedling B-301 from a tall bearded pink seedling #155 X Thisbe, gave an 11 inch plant with two branches, one right at the rhizome like aphylla, a creamy yellow with falls a tone lighter, yellow beard, good form, clean hafts, and 4 buds. Bloom season May 15 to 21. B-302 from Pink Formal X Randolph's aphylla was 12 inches tall, with two branches, one at the rhizome, a reddish-purple self except for the bronze beard, good substance, fair form, 4 buds, spathes flushed purple. These seedlings were all fertile and one of them was podded with true I. balkana pollen producing a single pod with 77 seeds.

Three seedlings from Zebra x *I. imbricata* bloomed this year, all the same odd grayed-tan coloring, but only one of the three fertile. This one had four terminal buds similar to the *imbricata* form used, many branches like a Table iris each with no less than three buds and was in bloom for nearly a month. Some of the early seedpods were well over an inch long before the final flowers were pollinated. This plant set pods to Zebra and to selfing. None of the 6 seedlings showed the striped leaf of its pod parent, Zebra, but we hope to recover this striping in the second generation. One of these seedlings (not the fertile one which had few increases) was counted as having 25 chromosomes, which came as a complete surprise since four forms of Zebra sent Dr. Randolph last year had all proved to have 48 chromosomes. Evidently somewhere in the many Zebra plants in the garden we have a diploid of 24 chromosomes since *imbricata* is known to be 24 chromosomes.

Four Terminal Buds

The old Sass diploid *plicata*, Midwest, also crossed with *I. imbricata*, gave 5 blooming seedlings, and all of these were also in that same grayed-tan coloring, just one seedling showing more of a gray-lavender color. These all showed typical Table iris branching, one of them really outstanding with an "S" type stem, three branches with the lowest branch and the terminal having three buds, the others two buds, all plants around 17 inches. One seedling, the gray-lavender, had four terminal buds, again inheriting this from *I. imbricata*. Another cross of Midwest x the dwarf iris *mellita* gave all gray flowers, six to nine inches tall, one having three terminal buds, the others two, and all with wide seven-inch sickle-shaped foliage.

To Mrs. Wilma Greenlee goes the credit of first spotting the *plicata* markings in the bud of a Theodolinda x *mellita* cross. This opened as a true *plicata* with creamy white standards lightly stitched pale lavender, falls white-stitched pale blue very heavily at the haft, paling out at the center of the falls, and with blue crests, white beard tipped yellow, about 12 inches tall, three branches having four buds, fair form, slim stem, no pollen, blooming May 5th-10th. All other seedlings in this same cross were either blue bitones or bluish *amoenas* and some did have pollen. These triploids of 36 chromosomes are very fertile and set bee pods freely, but the *plicata*, B-701, would not set pods to pollen from my Lilliput *plicata* derived from Mariposa Mia x *Cretica*. Possibly that was just too much of a mixture for its tastes.

A cross of Sharkskin x the onco *Susiana* produced one viable seed in the pod which was embryo-cultured by Dr. Randolph. This produced a very vigorous plant with many increases and bloomed with five stalks. Coloring was a near chartreuse *amoena* showing a few purple flecks in the falls, orange-yellow beard, flower size 4 1/2 x 5 inches, stalk 25 inches, with one high branch at 16 inches, 3 buds, form poor, but with simply huge anthers loaded with pollen. The size of these can only

come from Susiana. This has been counted and was 44 chromosomes; taking 24 from Sharkskin, the remaining 20 must have come from Susiana. If this plant can be induced to self now, we may break into some unusual colors with the doubled set of onco chromosomes to play with.

Now let us look forward to see what the future holds. In 1958 we will have many new iris to display here. Dr. Randolph has sent us 14 additional iris species in the Median height range. From Helen Doriot there are 12 new seedlings, most of them from her wonderful Snow Flurry x pumila crosses. Twenty seedlings were received from a new MIS Member, A. J. Motsch. Dave Childs sent us 5 additional plants. Dr. Percy Brown shipped in his new Intermediate, Sea Lavender; Wilma Vallette came in with several new iris including her latest in seedlings; Bee Warburton added further selections in her Lilliput Hybrids; several from LeRoy Davidson including a small 24 inch pink from Saluskin x Pink Sensation; Paul Cook added several of his late-blooming Medians plus Kiss Me Kate, a must-have for any lover of the unusual; Sid and Ben of Melrose Gardens also helped us add to the species iris as well as sending seedlings and some more of the best in the old-timers. Tell Muhlestein has no intentions of limiting his hybridizing to the tall, and now has 5 Guest iris here. Walter Welch this year sent us the true 48 chromosome *I. balkana* and one that may be the true *I. subbiflora*, those two having been on our want list for years. Via both airmail and boat mail, Rudolph Hanselmayer let us have a really great collection of Species, natural hybrids of species, seedlings, and some of his newest named varieties. This is not all the new things to arrive this year but if we do not stop sometime, the spring blooming season will be right at our doors, long before this article is finished.

What is our opinion of Test Gardens? They are lots of work, sweat, and records that must be kept straight, labels that have to be completely legible, and frustration when a valuable seedling or species is lost. They are highly educational not only for the hybridizer but for those who love to grow the finest in iris. They are loads of fun and a mecca where old friends meet old friends and new friends are made every day. Visitors find a test garden economical since hundreds of different iris can be seen in one area. It is perhaps even disappointing to some from a distance since it is impossible to see all the types of Median iris in one visit. The vast coverage of the Medians, from 10 to 28 inches in size, and at the Central Median Iris Test Garden, from late April to early June in length of bloom plus the fall bloom of the Remontants, should do much to quiet the complaints of some gardeners that the iris only blooms for a couple of weeks. Visit the Test Gardens in '58. You'll be glad you did.

CEDAR BROOK CELEBRATES

DOROTHY DENNIS, N. J.

The iris gardens in Cedar Brook Park, Plainfield, celebrated their twenty-fifth anniversary on May 16. To commemorate the occasion, the Plainfield Garden Club, sponsor of the project, held a reception in the gardens for members of their club, County and State officials participating in the project, a number of horticulturists interested in iris and the gardens, and in honor of Miss Harriette R. Holloway, sponsor and mentor of the gardens throughout these years.

The day was sunny, and although a bit early for top bloom, the iris made a splendid display, a compliment, indeed, to those who had worked over them through the years.

Mr. John C. Wister, called upon to say a few words, spoke of the start of the gardens and the work involved in their development, and paid tribute to the members of the Plainfield Garden Club and Miss Holloway for their care of the gardens. Mr. Kenneth Smith, one of Region Nineteen's well known hybridizers, who has contributed generously to the gardens, after praising them, spoke of the need for such projects. Mr. Fay Mathewson, of the Union County Park Commission, in which county these gardens are located, spoke of the beauty of the iris flower, of the splendid co-operation of members of the Plainfield Garden Club, and of Miss Holloway's outstanding work on the project.

On behalf of the Plainfield Garden Club, Mrs. Frederick M. Lookwood, the President, presented Miss Holloway with a bronze medal.

Among other iris-interested people present were Dr. William E. Snyder and Professor Robert B. Clark, of Rutgers University; Mrs. F. P. Walther, Chairman of the Citizen's Committee of Presby Memorial Iris Gardens in Montclair; and Mrs. H. C. Donohoe, Chairman of the Exhibition Committee of the AIS.

THE SEASON AT PRESBY

BARBARA WALTHER, N. J.

The 1957 peak of blooming season for the Presby Memorial Iris Gardens of Montclair, New Jersey, was almost a week early this year while heretofore it has varied only one or two days. This was due to a very wet spring and then suddenly an unprecedented hot spell lasting over a week.

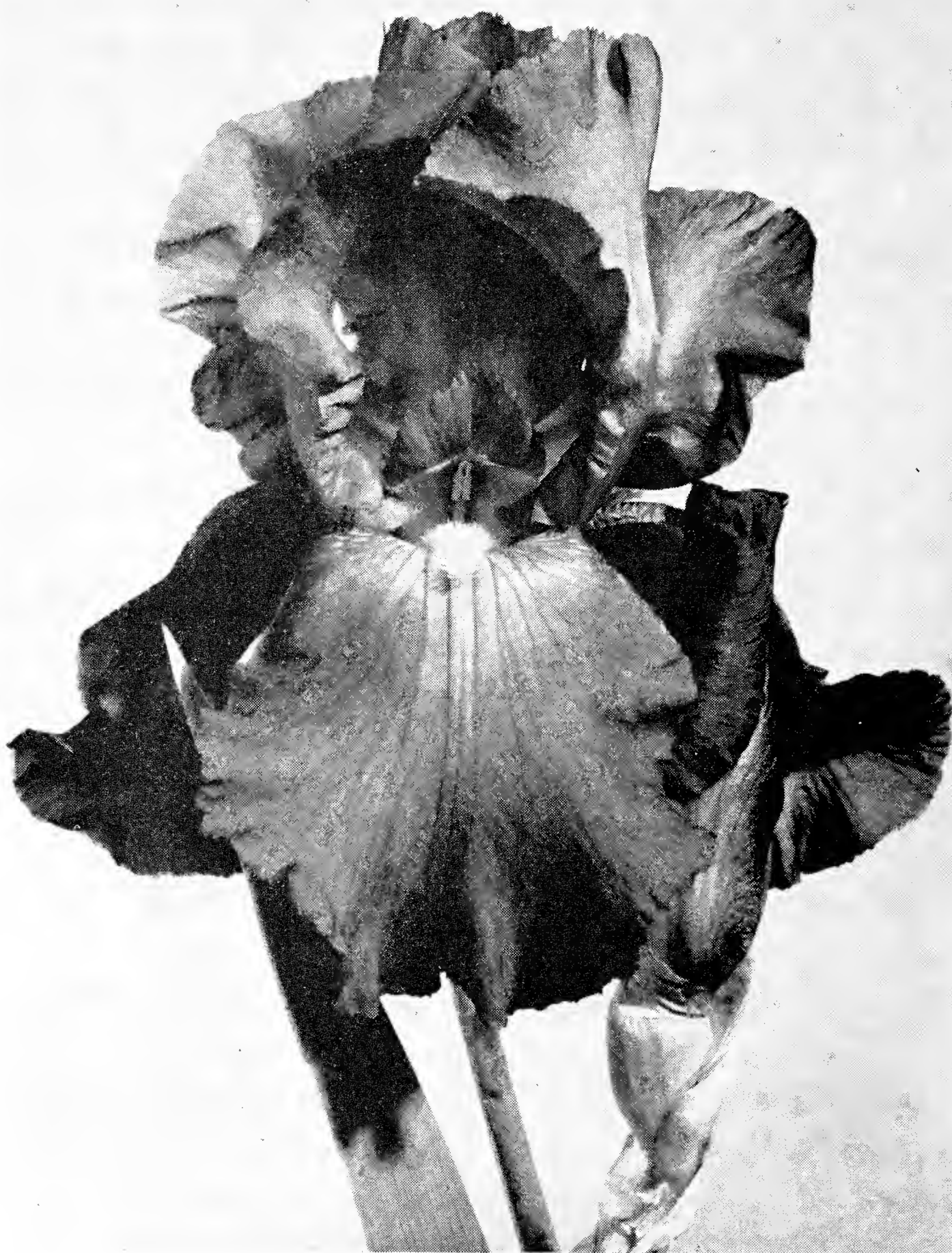
For the first time the Presby Gardens had in bloom a blue iris with a tangerine beard, Mr. Henry Sass' My Happiness. This was a lovely light blue, undoubtedly outstanding and noteworthy. Also, for the first time the gardens had white iris with tangerine beards, Mr. Schreiner's Gay Lavinia and Mr. Sass' Sass' Revel. These iris created as much interest in the general public as did the first pink iris. People came again and again to see them.

Another matter of interest was the Dwarf iris. These had been replanted in a new and more interesting setting and had been augmented by a gift from Mrs. Zeh Dennis of several new interesting varieties. They were particularly lovely and as this collection is added to it is hoped a wider interest in dwarfs will result.

The most interesting happening of all was the request by those who have sponsored and are developing public iris gardens in Florence, Italy, for iris from the Presby Memorial Iris Gardens' historical collection. It is their desire to have in the Florence Gardens a replica of the Presby Historical Gardens. While some iris were sent them this year, more will be sent later. These historical sections in the Presby Gardens have recently been replanted so that it is necessary to have them bloom again before sending any off, so as to be sure there will be no mistake. The spirit and interest of those interested in setting up the iris garden in Florence would seem to point to the Florence Iris Garden as a great international iris garden; a friendly lovely garden of iris for gardeners all over the world to enjoy and contribute to.

It is the new iris that the public wants most to see and always asks about. Everyone thought Galilee had the most true blue of any iris; Ingenue was well liked, a lovely pink, cream underlaid at throat and a read beard; Happy Wanderer delighted everyone; Spanish Main was particularly well-liked because of its clearness and color, a yellow that will help many another iris to look its best; Harvest Splendor is a golden tan, large well-formed flower, much commented upon, as was Red Chieftain, a deep dark red velvet with brown in the red, smooth falls and brown-red beard, good form and flaring. Annette, a dark rose over gold with a deep tangerine beard was a "want" with many. Deep Black, a very blue-black with blue-black beard and a very rich heavy substance got more than its share of attention. Triumvirate is a fine dark deep purple. Blue Sapphire was very, very lovely and a great favorite. First Violet bloomed beautifully and carried her honors regally. Many liked Dr. Wanlass, lilac-white with a bright beard, large and flaring. Latigo impressed everyone with its whiteness accented by light cream to green tint on haft and a matching yellow-green beard. Again Lady Ilse had admiring groups around her, a very wonderful blue iris in every way. At last Presby Gardens could boast a Queen's Taste and its bright clear color made it noticeable among the other iris. Total Eclipse was voted a grand iris, wonderful form and such great depth of color.

In writing of these new iris one is reminded of the wonderful iris seen in Memphis at the convention; of Nashboro and Crystal and Azure Haven; of Celestia and Rose Sails and of Swan Ballet; Regina Maria, June Meredith, Pink Fulfillment; of Winterset, Taholah, Bronze Star, and Full Reward. A wonderful convention to the writer not only because of the iris one could see but because of the people one came to know. Of course the new, only three years old, Ketchum Memorial Gardens of



Helen McCaughey is a huge self of grape-hyacynth blue. It is a seedling from Brother Charles of Techny, Ill., and has almost perfect branching.

Memphis were of great interest; a most perfect setting for the gardens, splendid design and lots of room to grow in, and a splendid lot of iris. All the gardens visited were lovely and while some of the new iris were not in bloom that is something that will happen no matter what time is set for viewing the gardens. In the Presby Gardens when the newspapers call up asking just when the iris will be at peak bloom one is tempted to tell them there is no such thing, that visitors will find it is peak bloom time for some iris any time they come.

The Presby Gardens' Japanese iris, of which there are quite a number, bloom in July and as usual had their admirers. A visitor from Oklahoma who came to see how the Presby Gardens looked even out of bloom, had never seen Japanese iris in bloom before. He was delighted with them; such interest and admiration as his are very gratifying.

GIBBERELIC ACID USED IN GERMINATION TESTS

The brief report in the July Bulletin was of interest to me as I have used Gibberellic acid for two seasons and, perhaps, the results may prove of interest.

Last fall I soaked iris seeds in distilled water using ten drops of a stock solution made up of 1 milligram of the crystalline acid form to a quart of water. The seeds were placed in 1" test tubes, filled with the solution and soaked for two days, three days, five days, and one week. Progressively the embryos of excised seeds appeared larger and larger and all were planted along with unsoaked seeds of the same crosses for control. The germination did not appear to be appreciably better. The Gib. soaked seeds however soon passed all others in growth and general health.

During the last of June held over seeds of 1 year, 3 years, and 8 years were similarly soaked in the same Gibberellic solution and it was surprising to find that a few oncos as well as talls germinated. None of the unsoaked controls gave any evidence of germination activity. Of the 8-year group three plants were germinated. Germination on the others approached the usual germination percentage.

In conclusion it can be stated that the Gibberellic appears to offer a method of breaking dormancy with an expectancy of success to a degree the equal of any other known methods.

With respect to excising of embryo culture methods it would appear that Gibberellic reduces this to child's play as far as the mechanics of excision of the embryo is concerned. After one week of soaking in the prepared solution the embryo on most all seeds was clearly visible to the naked eye and easily removed by careful use of a sharp knife, first

removing the brown seed coats carefully, using fingernails. Sprouting the embryos naturally should follow the several techniques as described by Bill Cluff, Dr. Randolph, Dr. Lenz et al.

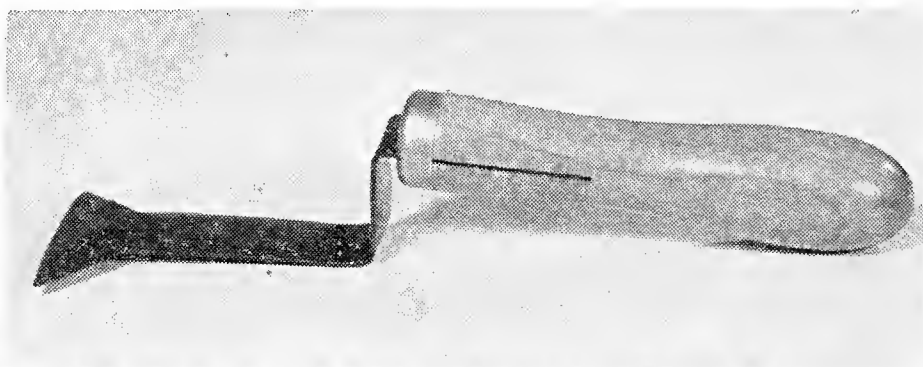
Spraying the plants with the growth substance did not appear to induce tendencies for startling conclusions, in fact not nearly so much as working in 100 pounds of cracked limestone did to the control plants. Quite by accident a paper sack full of the limestone was left on the path, the bottom side deteriorated so that when the bag was lifted the limestone did not. Rather than gather up the stuff it was all scattered among the plants of the control group. These all now have at least four side shoots adjacent to nearly a standard size center rhizome and many will bloom this coming spring.

Further use of the Gibberellic solution is planned for the 1957 crop of seeds and some experimental work is also planned for the blooming season of 1958.

Finally a word to the boldly adventurous ones, if you do plan to engage in the experiments of science and engineering do be alert to the known facts that colchicine is a potent poison, the effects of Gibberellic on or within the body is not well known, radio-active substances can cause harmful body effects by radiation, and particularly is this contamination serious if ingested into the structure of the body.

—DAVID LERCARI
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The American Iris Society
MINUTES, DIRECTORS' MEETING

Hotel Chase, St. Louis, Missouri
November 9-10, 1957—9:00 A.M.

The meeting was called to order by President Marion R. Walker. The following Directors answered the roll call: Ackerman, Benson, Douglas, Fischer, Knowlton, Randolph, Rogers, Schirmer and Wills. Mr. Moffat, Mr. Scott, Dr. Riddle and Mr. Waters were absent.

President Walker read to the Board letters of resignation submitted by Directors Moffat and Waters. It was moved and seconded that these resignations be accepted and that action be taken to appoint replacements at the current Fall Board Meeting.

It was moved and passed that:

1. The minutes of the Memphis Meeting be approved.
2. The By-Laws, as presented to the membership, be approved.
3. The report of the Treasurer be approved and published.
4. The report of the Executive Secretary be approved.
5. The preliminary report of Awards Committee be approved.
6. The report of the Editor be approved.

It was moved and passed that the institution of a time lag in the awarding of the Honorable Mention Award be postponed until a later date. It was also moved and passed that there be no change in the voting rules in the awarding of the Franklin F. Cook Memorial Cup.

Dr. Randolph presented a paper on the Classification of the True Bearded Irises. The Board approved by unanimous voice that this paper be adopted as the official Classification of the Society and further, that copies be distributed to the heads of all affiliate societies. It was also unanimously approved that the following symbols be adopted for the purpose of registration:

Miniature Dwarf Bearded—MDB
Intermediate Bearded—IB
Border Bearded—BB
Standard Dwarf Bearded—SDB
Miniature Tall Bearded—MTB
Standard Tall Bearded—STB

The Board unanimously approved Mr. Ackerman's motion, as pertains to the High Commendation Award, under the Awards Policies and Procedures, as follows:

That the portion as reads: "Each judge may vote for not more than ten such varieties, total, of all classifications."

Be amended to read: "Each judge may vote for not more than ten Tall Bearded varieties, and also for not more than five varieties in each of the other classifications."

It was moved and passed that a top award for each of the True Bearded Iris be designated; these awards to be activated when sufficient numbers of varieties become eligible for such awards and further, that similar consideration be given to other Iris, such as Arils.

It was moved and passed that the Society continue to use the present Official Color classification as compiled by Mr. J. Arthur Nelson, pending further study; that the folder in question be brought up to date; that the symbols, for registration purposes, be utilized and that new numbers be assigned to each of the new classes being established, followed by the symbol in each class, then the words describing the color, followed by a variety which is a typical example of that color class.

Mr. Jay Ackerman, Chairman of the Committee on Round Robins, read a detailed report from the National Director of Robins, Mr. John A. Bartholomew. The Board accepted with thanks and unanimously approved this report. A resolution on behalf of the Board was passed to thank Mr. Bartholomew for a job well done. It was moved, seconded and passed that authority be granted Mr. Bartholomew to continue his program at his discretion, making any changes he believes feasible.

President Walker discussed the re-activation of the Research Membership.

It was moved and passed that the Executive Committee, in co-operation with the Scientific Committee, be authorized to discuss and allocate funds available for the use of the Scientific Committee during the coming year.

President Walker read the report on the Missouriensis Project submitted by Dr. Lee W. Lenz, Chairman of the Scientific Committee. The report was unanimously approved by the Board with the recommendation that it be published.

It was moved and passed that the report of Mr. Homer Metcalfe, assisting Dr. Lenz on the Missouriensis Project, be accepted for publication and further, that a letter of commendation be furnished Mr. Metcalfe.

President Walker read the report on Test Gardens, submitted by Dr. Lee W. Lenz, Chairman of the Test Garden Committee. The report was unanimously approved by the Board. It was moved and passed that the recommendations of the Test Garden Committee be accepted; that their report be published in the Bulletin and in addition, that the committee be continued with instructions to develop a Test Garden program sponsored by the American Iris Society.

Mr. Carl O. Schirmer, Treasurer, submitted his prospective budget for the coming fiscal year. Mr. Schirmer's budget was approved by the Board.

The Board recommended that Mr. Schirmer establish a special fund in his accounts as a result of the AIS being the recipient of \$2,000.00, from Region #15, for scientific studies. This amount was accepted

from Region #15 with great appreciation.

Upon nomination by President Walker, the following RVPs were approved:

Region #1: Mrs. Shirley Spurr, 36 Cedar Park, Melrose, Massachusetts.

Region #2: Mr. William G. McGarvey, State University of New York, Oswego, N. Y.

Region #8: Mrs. Ruth Goodrick, 16610 W. Pepper Lane, Milwaukee 14, Wisc.

Region #13: Mr. Bennett C. Jones, 5635 SW Boundary, Portland 19, Oregon.

Region #14: Mr. Larry Gaulter, 271 Farrelly Dr., San Leandro, California.

Region #22: Mrs. Helen McCaughey, 5720 N.W. 36th St., Oklahoma City, Oklahoma.

Upon nomination by President Walker, the following Directors were appointed:

Mr. Albert G. Lauck, 5142 Harvest Lane, Toledo 13, Ohio.

Dr. John R. Durrance, 4301 E. Cedar Avenue, Denver 22, Colorado.

President Walker read a letter from Region #20 inviting the AIS to hold its National Convention in that Region in 1963. It was moved and passed that the invitation be acknowledged with thanks informing Region #20 that the invitation will be considered at a future date.

Mr. Jesse E. Wills, Chairman of the Registration Committee, read the report of the Registrar, Mrs. Walter Colquitt. The report was duly approved and accepted. It was agreed that President Walker would write a letter of thanks to Mrs. Colquitt for a job well done.

It was moved and passed that the rules governing the Award of H.M. to fourteen Tall Bearded Iris be amended to read: *FIFTEEN*.

Following a full discussion of the status of our foreign memberships, the Board reaffirmed the policy of maintaining the same dues for both foreign and domestic memberships.

The agreement between the Missouri Botanical Garden and the American Iris Society was officially approved by the Board of Directors.

It was moved and passed that the rate of \$40.00 be established for the sale of membership tapes for commercial use.

It was moved and passed that we continue to utilize the services of National Flower Magazines by inserting suitable advertisements in their annual iris issues.

It was moved and passed that Region #7 explore the possibility of dividing their Region into two regions i.e., Tennessee and Kentucky in one, and Mississippi and Alabama in the other. It was agreed that Mr. Robert Carney, RVP of Region #7, make a preliminary canvass of his Region and forward the results to the Board after a decision has been determined. Total Membership in Region #7, as of this date, is 500.

It was moved and seconded that Registrations be prepared by offset and distributed as a second pamphlet with the BULLETIN.

It was moved and seconded that the Commercial Directory Advertising Rates, be increased from \$9.00, for a One Inch, Single Column Ad, to \$10.00 and from \$15.00, for a Double Space Listing, to \$16.00, EFFECTIVE January 1st, 1959, announcement of this change to be made in the October, 1958 Bulletin, by the Editor.

It was moved and passed that the President establish a Publications Committee for the purpose of supervising all publications pertaining to the offices of the Secretary and Editor. Further, that all recommendations agreed upon by this committee be furnished the Board of Directors.

It was moved and passed that the Hybridizer's Medal for the year 1957, be awarded to Mr. Edward Watkins and Mr. Walter Welch, and that the Distinguished Service Medal be awarded to Mrs. George D. Robinson.

It was moved and seconded that Mr. Albert G. Lauck and Dr. John R. Durrance be authorized to serve out the unexpired terms of office of Mr. Moffat and Mr. Waters—at the end of 1959.

Dr. Randolph, in his report on the new Iris Book stated that it now appears that publication of the book will be in about a year from now—in the fall of 1958. Dr. Randolph was highly commended by the Board for his work on this project.

President Walker made a motion, unanimously seconded by the Board, that the Editor and Executive Secretary be re-employed for the next fiscal year.

It was moved and unanimously approved that the following officers be re-elected:

Marion R. Walker—President

W. F. Scott, Jr.—1st Vice-President

L. F. Randolph—2nd Vice-President

Carl O. Schirmer—Treasurer

Reappointment was confirmed of all Regional Vice-Presidents whose terms of office have not expired.

Fall Board Meeting adjourned at 12:05 o'clock on Sunday, Nov. 10th.

—Respectfully submitted:

CLIFFORD W. BENSON, *Executive Secretary*

RESULTS OF 1957 MEMBERSHIP CAMPAIGN

L. F. RANDOLPH

At the beginning of the 1957 Membership Campaign on October 1, 1956 the Society had 4819 members in good standing, not including those from foreign countries. The total at the end of the campaign on September 30, 1957 was 5124 or a net gain of 305. If the 214 foreign members on this date are included the total is 5338.

During the 1957 campaign 874 new members were reported by 17 Regional Vice Presidents or their Membership Chairmen; this compares very favorably with the 735 new members solicited during the 1956 campaign, especially as there was an increase in dues during the year.

The 1957 Prize Winners

The Grand Prize of a life membership for the RVP of the Region achieving the highest net gain in membership was won by Mr. Robert Carney of Region 7. As a direct result of the highly effective campaign which he conducted, the membership of his Region was increased from 384 to 491, a net gain of 107 for the year. The fact is that Bob Carney's Region now has so many members the directors have authorized a study of the feasibility of establishing a new Region comprising the states of Alabama and Mississippi.

The Grand Prize of a life membership for the highest percentage gain in new members in excess of the assigned quota was won by Mr. Eugene Sundt, the RVP of our youngest Region, No. 23. This newly formed Region started the year with 37 members. An additional 40 new members were obtained during the year and there were only 3 non-renewals among the original membership, which is an excellent record for a new Region. The total of 69 members in good standing at the end of the year in Region 23 represented an increase of more than 300 per cent, or more than three times the assigned quota.

The Second Prize of a 10-year membership for the second highest percentage gain in new members was won by Mrs. Cecil McCutcheon of Region 22 with a quota of 77 and a total of 109 new members, which was a 42 per cent increase over the quota.

The Third Prize of a 5-year membership for the third highest percentage gain in new members was won by Bob Carney of Region 7 with a quota of 96 and a total of 134 new members; this was a 40 per cent increase over the quota.

Both Mr. Carney and Mrs. McCutcheon are repeat winners of Membership Campaign prizes. Last year Mrs. McCutcheon accumulated membership points representing the highest percentage gain in membership of any Region. This year as RVP of Region 7, Mr. Carney conducted a campaign that achieved the highest net gain in membership of any one of our 23 Regions.

The Grand Prize of a life membership to the member securing membership points representing the highest percentage gain in membership was won by Mrs. L. N. Limpus of Region 22 with 150 points. The second prize in this category, consisting of a 10-year membership, was won by Mrs. Carrie Little Owens of Region 7 with 58 points and the third prize of a 5-year membership was won by Gordon W. Plough of Region 13 with 41 points.

In the accompanying table are summarized the results of the 1957 Membership Campaign. The tabulation shows for each Region the number of paid-up members at the beginning of the campaign, the assigned quota of 25 per cent of the membership and the number of new members reported by the RVPs. In this latter column the blank spaces indicate that no report was received from the RVP of those Regions. In



Left, Eugene Sundt holds the best seedling in the show, while (right) Mrs. Earl Mount proudly displays the Best Horticultural Specimen, in Albuquerque's first all iris show.

this same table there are columns showing the number of members at the end of the campaign on October 1, 1957, the net gain or loss by Regions in both 1956 and 1957, with losses in parentheses, and the numbers of non-renewals as of that date are also shown. Since then an appreciable number of delinquents have paid their dues and the membership total has increased proportionately.

It is gratifying that there was a substantial increase in memberships during the past year, especially since it was anticipated that the increase in dues that went into effect as the campaign was getting under way might affect adversely the results of the campaign. Not so gratifying is the fact that too many Regions failed to participate actively in the campaign. The gains achieved were due to the effectiveness of the drives for new members in a relatively small number of Regions. It is to be hoped that a much higher number of Regions will participate actively in the 1958 campaign.

Summary of 1957 Membership Campaign Results

Region	Members Oct. 1, 1956	Quota	New Members reported by RVPs	Members Oct. 1, 1957	Net gain or loss		Non- renewals in 1957
					1956	1957	
1	227	57	3	208	34	(19)	26
2	366	91	103	357	63	(9)	81
3	141	35	15	157	29	16	18
4	149	35	35	221	16	72	7
5	163	41	39	120	25	(43)	2
6	465	116		461	80	(4)	81
7	384	96	134	491	82	107	70
8	90	22		84	4	6	16
9	214	53	23	212	15	(2)	0
10	69	17		69	(27)	0	10
11	120	30	21	112	18	8	0
12	127	32		94	27	(33)	21
13	283	71	99	300	34	17	3
14	288	72	40	298	81	10	1
15	184	46		201	8	17	27
16	98	24	16	130	(126)	32	1
17	359	90	94	360	43	1	3
18	329	82	30	337	25	8	57
19	106	26	2	109	8	3	7
20	92	23		87	6	(5)	26
21	256	64	79	298	38	36	25
22	309	77	109	339	79	30	66
23	37	9	40	69		32	3
Totals	4819		874	5124			561

The net gain in members during 1956 was 562; in 1957 it was 305. Total members including 214 foreign on Oct. 1, 1957 was 5338. There were 735 new members reported in the 1956 campaign compared to 874 in 1957.

FINANCIAL REPORT — 1957

November 4, 1957

Mr. Carl O. Schirmer, Treasurer,
The American Iris Society,
St. Joseph, Missouri.

Dear Sir:

In accordance with your instructions, we have made an audit of your books and records as Treasurer of The American Iris Society and submit herewith the accompany statements of cash receipts and disbursements and the cash on hand in bank, for the fiscal year ending September 30, 1957.

We hereby certify that in our opinion, the statements as submitted herewith are true and correct, and correctly reflect the financial operations for the above fiscal year.

—Respectfully,
George A. Tietz & Company,
By GEO. A. TIETZ

The American Iris Society STATEMENT OF RECEIPTS Fiscal Year Ending September 30, 1957

Exhibit I

SUMMARY

CASH IN BANK:

Balance on hand October 1, 1956	\$11,469.02	
Receipts for fiscal year	27,766.93	
	<hr/>	
	\$39,235.95	
Disbursements for fiscal year	25,698.95	
	<hr/>	
Balance on hand September 30, 1957		\$13,537.00

RECEIPTS

Memberships:

Renewal Single Annual	\$11,001.40	
Renewal Family Annual	2,478.00	
Renewal Single Triennial	2,543.00	
New Single Annual	4,260.48	
New Family Annual	389.50	
New Single Triennial	434.00	
New Family Triennial	305.00	
Sustaining	165.00	
Research	25.00	
Life	175.00	\$21,776.38
	<hr/>	

British Iris Society	\$ 245.75	
Books & Color Charts	1,079.81	
Bulletins	290.90	
Check Lists	329.75	
Slides	351.00	
Membership Tapes	385.00	
Bulletin Advertising	2,091.95	
Registration Committee	523.76	
Exhibition Committee	616.84	
Miscellaneous	75.79	\$ 5,990.55
Total Receipts		\$27,766.93

STATEMENT OF DISBURSEMENTS
 Fiscal Year Ending September 30, 1957

Exhibit II

DISBURSEMENTS

Bulletin Expense:

Salaries	\$3,025.00	
Printing	8,910.00	
Engraving	631.36	
Postage	322.72	
Envelopes	212.06	
Miscellaneous	73.30	\$13,174.44

Secretary Office Expense:

Salaries	\$4,752.79	
Postage	693.51	
Printing	249.42	
Supplies	239.00	
Furniture and Equipment	113.68	
Telephone and Telegraph	97.83	
Insurance	181.41	
Freight and Express	105.42	
Refunds	128.50	
Sec. Travel Expense	214.93	
Books for Resale ..	1,247.89	
Equipment Repairs & Maintenance	74.00	
Rent and Utilities	760.00	
Advertising	467.10	
Miscellaneous	123.69	\$ 9,449.17

Treasurer's Office Expense:

Supplies for Bookkeeping Records	\$ 13.16	\$ 13.16
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Committee Expense:

Awards	\$ 655.08	
Constitution & By-Laws	376.49	
Exhibition	663.77	
Membership	575.89	
Registration	31.14	
Robin	183.59	
Scientific	83.74	
Slides	19.48	
R.V.P.	473.00	\$ 3,062.18
		<hr/>
TOTAL DISBURSEMENTS		\$25,698.95

Statement of Our Reserves

Investments as of October 1, 1957

<i>Issue</i>	<i>Purchase Price</i>	<i>Maturity Value</i>
1 U.S. Series F Bond1945	\$ 740.00	\$ 1,000.00
2 U.S. Series F Bonds1946	1480.00	2,000.00
6 U.S. Series J Bonds1956	4320.00	6,000.00
1 U.S. Series J Bond1956	360.00	500.00
1 U.S. Series J Bond1957	720.00	1,000.00
1 U.S. Series J Bond1957	360.00	500.00
		<hr/>
		\$7980.00
		\$11,000.00

All series F & J Bonds mature in twelve years.

We also have the following:

One (1) Farmers State Bank one-year 3% Time Savings Certificate for \$1,200.00

Cash in Reserve Fund \$40.00

The above listed Bonds, Savings Certificate and Cash are being held in Safety Deposit Box #75 of the Farmers State Bank in St. Joseph, Missouri.

Our regular checking account is now being held in the Farmers State Bank of St. Joseph, Missouri, and the Petty Cash Account is being held in the First National Bank of St. Louis, Missouri.

—Respectfully submitted,
CARL O. SCHIRMER, *Treasurer*

LOUISIANA NATIVE IRISES

A large list of choice, standard varieties and new introductions. Catalog sent on request. Shipping period August through October.

UNIVERSITY HILLS NURSERY

CLAUDE W. DAVIS, PROPRIETOR

470 Delgado Drive, Baton Rouge, Louisiana

REPORT OF COMMITTEE TO STUDY TEST GARDEN SITUATION

November 1, 1957

The Committee appointed to study the Test Garden situation, after deliberation has arrived at the following conclusions:

1. All members agree that Test Gardens can serve a useful purpose in the furthering of interest in, and knowledge about, iris and it is our opinion that the importance of Test Gardens should be recognized by the American Iris Society.
2. The Committee also agrees that the term "Test Garden" should be interpreted broadly to include all kinds of irises. Thus groups interested in testing and evaluating any particular group such as the *Spurias*, *Siberians*, or *Californians*, or in the evaluating of varieties suitable for the particular area or climate, would be considered as much a "Test Garden" as those gardens devoted to the testing of the latest seedlings.
3. The majority of the members of the committee agree that Test Gardens should be developed at the local level by local groups.
4. In order to aid local groups who might be interested in establishing Test Gardens, as well as coordinating the efforts of those already engaged in Test Garden work, it is the recommendation of this Committee that the Board of Directors of the American Iris Society establish a "Test Garden Committee" among whose duties it would be to formulate a set of rules and regulations which might be used by interested groups in establishing and operating such gardens. Further, it is our opinion that this Committee should be on a par with other established committees now operating as a part of the American Iris Society.
5. It is also believed that any rules and regulations established by the proposed Test Garden Committee should be as few in number and as flexible as possible in order that the needs of all groups may be met.
6. Further, it is believed that any Test Garden which is established and maintained according to the rules and regulations set forth by the Test Garden Committee should be recognized by the American Iris Society as an "Official Test Garden," "Accredited Test Garden," or other suitable designation.
7. Finally, it is the opinion of this Committee that no new award, poll, or certificate be designated in connection with Test Gardens and Test Garden evaluations.

COMMITTEE TO STUDY TEST GARDEN SITUATION

Lee W. Lenz, Chairman
Mrs. Walter H. Buxton
Mr. Roy Davidson
Mr. Hubert A. Fisher

Mrs. Stayton Nunn
Mr. Mel Wallace
Mrs. Bee Warburton

REPORT OF THE SCIENTIFIC COMMITTEE

November 1, 1957

During the past year a large portion of the Chairman's time has been devoted to the completion of the Revision of the *Californicae* and it is my pleasure to report that the manuscript is now in the hands of the printer and it will appear shortly in our research publication, *Aliso*. The part being published this year, i.e., the taxonomic revision of the group, will be followed this next year by the part on variation, Natural Hybridization and Speciation in the *Californicae*.

Preliminary results obtained this year on self-incompatibility in *I. pallida* were very confusing and it appears that the incompatibility picture in the genus is not a simple one. I had a chance to discuss the matter with Dr. Brewbaker of the Brookhaven National Laboratory, and he is very much interested in the work because it appears that there may be some unusual conditions present in *Iris*. The work will be continued but it will take a considerable period of time before we know all the answers.

Home Metcalf and I were able to do considerable work on *I. missouriensis* this past spring aided, in part, by a generous grant of \$250 from the 1956 Convention surplus fund. A full report of this work is being made to the Board by Metcalf. At the convention in Memphis I had the opportunity to see and talk with most of the other members of the Scientific Committee and a number of points were covered. I know that Dr. Randolph and Dr. Heinig have both been very busy with their own research in addition to working on the new iris book. Ike Nelson visited me here at Claremont during the summer and he is busy preparing to leave for a collecting trip to South America. Just as I was preparing this report, I had a letter from Dr. H. H. Hadley, informing me that he had moved to the University of Illinois from Texas A. and M. College and that he will have to give up his work with the *Spurias*. This is unfortunate for members of the AIS, since Dr. Hadley was doing some interesting work on the cytology of the group.

There is one subject which I would like to report on to the Board at this time which I feel is of the gravest importance and should be of great concern to all members of the AIS, especially to the members of the Board and the members of the Scientific Committee. The item I am referring to is the diseases which are raising such havoc to growers all over the United States. It is not the matter of a single disease but several, perhaps many, some important in one area, others in other areas. Scorch is, of course, the one that has received the greatest amount of publicity in recent years, but this is only one problem. Virus is another, and these are followed by the rhizome rots, etc. In New Zealand rust has become a problem of almost epidemic proportions and it is reported to be ruining the Dutch *Iris* industry.

In recent months I have been in correspondence with a plant patholo-

gist who has been interested in iris viruses and he reports five different kinds which he has identified, and I hear that there may be as many as nine known, or suspected, at the present time. I might say here that I have been promised a paper for the Bulletin on the virus diseases by Dr. Travis. Travis, by the way, is with the Department of Agriculture at Beltsville.

What can be done about iris diseases? That is the thing that should concern us now. It is a difficult problem and one that is not going to be solved overnight. It is also not a problem that can be solved by small growers and backyard breeders although they can certainly help. The basic answers can only be found, and control measures worked out, by large plant pathology departments where there are all the facilities needed to carry on large scale investigations. Pathology is not the only field where we will need help; we are going to need help from the Nematologists as well. All of this means that the research departments of several of our agricultural colleges and universities must become interested in doing the basic work. They are the ones that have the facilities and trained personnel necessary. These departments have their own research programs; sometimes the problems to be investigated are chosen by the worker himself, but more often the decision on what is to be done comes from higher up. Too, any one department can only carry on so many projects at a time and they cannot drop one to start another. Besides this, they are besieged by outsiders who want help on a hundred and one things. On this matter I speak from experience, because I was for several years connected with the department of plant pathology at Louisiana State University.

As I see it, no one department in one area can solve the iris problems for the whole country. We must have several centers working—at least one on the West Coast and one on the East Coast. But how are we going to get a research department interested in working on iris diseases? From time to time the projects being carried on reach completion and new projects are undertaken. Agricultural colleges and universities usually undertake to work on the most urgent problems first. That is only natural and as it should be. They are being supported by the state and should do what they can for the greatest number of people.

To me the answer seems to be this. The iris growers and producers are going to have to present their problems to the proper authorities in such numbers and in such a manner that the authorities in charge of making decisions come to realize that diseases are threatening a very important horticultural crop. Only then will we get results. As an example, UCLA has in the past few years been especially interested in Easter Lilies and Gladiolus and have carried on major projects on these crops.

Something like a year and a half ago, I discussed the matter with the people at UCLA and found to my surprise that Dr. J. G. Bald of the

department of plant pathology was interested in irises and iris diseases. He was just leaving on a sabbatical and told me to contact him on his return. I am pleased to report that Dr. Bald has agreed to serve on the Scientific Committee and he has told me that iris diseases will be studied at UCLA, not as a major project but as a secondary one. This is a start. But will the results from here apply to New England and Texas? Perhaps some of them will.

I have on my desk a copy of a letter to President Walker from George Murray, saying: "As custodian of the American Iris Society's 1956 convention surplus fund, Archie MacLean Owen and I have reached the conclusion that this surplus fund of \$2142.48 plus accrued interest, shall be allocated to the scientific department of the American Iris Society. . . . All members of the steering committee of the convention, except one, voted that this fund should be used specifically for research in the diseases of iris."

As chairman of the Scientific Committee, I would like to thank Mr. Murray as representative of the Custodians of the AIS Convention surplus fund for the generous contribution made.

How best can we use the money? As I pointed out earlier, iris diseases are not of a nature that a private grower can really do much research on the problems involved. One possibility is that a contribution might be made to a department for aid in their work. The sum involved is not enough to really do a great deal unless some work is already being carried on so that any additional monies available to them would allow their project to be enlarged or furthered beyond what it could be without such aid. From my experience, one of the ways of getting the greatest returns for the amount spent is to pay for the cost of an assistant to aid in a project already under way. Usually graduate students are used and at the present time the amount available, i.e., about \$2200, would pay a top man for about 11 months or a less experienced man for possibly even two academic years. However, it is pretty hard to get graduate students for \$1100. Our students here at the Garden get up to \$2600. If an assistant would materially aid Dr. Bald in his work, I would think that that might be one possibility. There may be others in other areas which would need help more. I am merely presenting these possibilities to the Board as ideas and not as proposals.

Unless some small and very clearcut problem is presented I would not think that the money should be used to start a new project which would have to be discontinued when funds were no longer available.

I do feel that this contribution is generous and I would like to see as much benefit derived from it as possible. In other industries the industry itself has sometimes had to make contributions for research. If we could get several good programs under way I see no reason why we should not expect at least some aid from other sources.

I hope that I have not overemphasized the disease situation, but during the past year I have heard numerous ominous remarks about

individuals discontinuing the growing of irises because of their bad performance, part of it at least due to the ravages of disease. In the case of virus, so far as I know, no plant of any kind has been cured once it was infected and consequently the answer would appear to be a new and enlightened breeding program for resistance, or at least tolerance, to the virus. I am sure that much of the virus trouble in the tall bearded irises has been brought about through the introduction oncocyclus blood into tall bearded lines.

—LEE W. LENZ, *Chairman*

Ohio Invitation

AL and LAURA LAUCK, Ohio

If you are traveling eastward through Ohio to the 1958 Convention, you are cordially invited to visit the gardens of the Don Waters, in Elmore, and of the Al Laucks in Toledo. These two gardens are just a few miles off U.S. routes of the Ohio Turnpike.

First, we'll try to give you some idea of what you can expect of these gardens, then exact directions for locating them.

You will probably reach our garden first. Here you will find 750 attractively arranged choice varieties of iris growing contentedly on three-fourths of an acre of ground. There are special display beds where the newest of the new in recent introductions, future introductions and many guests, both named and under number, are to be seen. Twelve well known hybridizers of the AIS have their selected iris guested here.

In the crinkled or lacy category you'll see Gay Princess, Lacy Blue Bonnet, Golden Garland, Curl'd Cloud, Picture Bouquet, Lavendula, Yesteryear, Crinkled Sunset, and Fashionette.

If you prefer blues or violets, you'll be intrigued with Demetria, Flying High, Symphony, Her Ladyship, Muted Music, Beth Corey, Eleanor's Pride, Violet Haven, Purple Ruffles, Gracious, Indiglow, Truly Violet, John Pierce's C-2, and many others.

Beautiful whites include Celestial Snow, White Bouquet, Two Snows, Snow Ballet, Ice Carnival, and Poet's Dream.

There are attractive yellows such as Golden Valley, Orange Banner, Garden Gold, Gold Cup, Gold Formal, Riviera, Golden Lancer, Grand Teton, and Country Editor. These blend in with the deeper bronzes and coppers of Bronze Bell, Hermit Thrush, Topaz, Beechleaf, Fortune's Gift, Copper Gold, Bronze Symphony, Manhatten, Beth Arnold, and East Indies.

You'll find a collection of the best that has been produced in reds: Garnet Royal, Trim, Indian Bay, Chief Chickasaw, Bang, Stop, Ozie Waters, Happy Wanderer, Caldron, Fire Brigade, Lois Craig, Quadrille and others, for example.

Other interesting iris are: Nashborough, Marble Fawn, Mary Lynn, Nona, Moonlight Trail, Olympic Star, Curfew, White Palomino, Memphis Lass, Real Delight, Scallawag, Hold That Tiger, Firenze, Country Cuzzin, Foxgrapes, Foxglow, Hudson Bay, Flame Kiss, China Gate, Peach Plume, Pink Sunset, Melody Mart, Vagabond Lady, Hi Spot, and Felicia. There are also approximately 2,000 seedlings that will bloom for the first time.

Waters' Garden Near Perfection

The Don Waters' garden in Elmore is not large. Flagstone walks lead to many beds where clumps of iris are grown to as near perfection as will ever be found. Don's untiring effort and know-how produces the lush, healthy plants and myriad blooms that you dream of but seldom see. The garden contains over 300 of the very latest and best known iris.

Don's own introductions, Orange Banner, Watermelon, Topaz, and Flying High make an impressive showing in his garden. This year you will see as well, his Real Delight, to be introduced this coming season. It is a luscious bright apricot with a beautiful tangerine beard. It seems to have everything! It has lovely form, wonderful texture and substance, and excellent branching on sturdy 40-inch stalks.

You will also see several fine selected seedlings: 1356 and LY-56, both fine large smooth yellows. W-157, a mouthwatering huge rose pink with a tangerine beard. LB-56, a ruffled porcelain blue, a counterpart of the rose pink in form and size. RF-56, a lovely light pink with wide hafts and tangerine beard. V-56, a large rich purple with excellent form and substance. Incidentally, you will find large size, excellent substance and form in all of Don's selected seedlings.

The Laucks' garden is located in Northwest Toledo at 5142 Harvest Lane. Those traveling on the Ohio Turnpike should leave it at the Maumee exit and there take alternate routes 23, 24 and 25 north. Continue on these routes approximately 6 miles to the intersection of Lasky Road (stop light), turn left to Harvest, turn right and drive about 1200 feet to the garden at 5142. Those traveling on route 24, take alternate 23, 24, and 25 at Maumee and follow the above directions. If you are traveling on route 20 eastward, take route 120 as you approach Toledo. 120 converges with alternate 23, 24, and 25. Follow to Lasky and proceed as described above.

To reach the Waters' garden from the Laucks' garden, drive south on Harvest Lane to Monroe St. (stop light), turn left on Monroe and continue for about 28 miles on Rt. 51 to Elmore, Ohio. At the intersection of Main St. in Elmore (stop light), make a slight jog. Drive one block to Clinton. Turn left on Clinton to house number 303.

In Woodville (between Toledo and Elmore on Rt. 20) and four miles from the Waters' garden is the garden of Olive Bowman, where about 400 up-to-date varieties are grown beautifully. Nowhere will you see iris grown better than here.

If you are coming from the south through Cincinnati, no iris fan should miss the garden of P. D. Wickersham in Urbana, Ohio. Wick has a collection of newer iris which is unmatched in any other garden. He has most all of the new introductions plus numerous future introductions from many of the hybridizers in America—the list of new ones for just this year is well over 100. Wick improved his cultural methods two years ago with amazing results. He has the iris planted in beds accessible to each other so that comparisons can be easily made, for Wick is a perfectionist and wants to know which iris is best. The Wickersham garden is one block from Highway #68, a main north and south highway through the state.

You'll be glad you stopped by to see these gardens.

Visit Long Island in Fifty-Eight

PEGGY EDWARDS, N.Y.

Visitors to the 1958 Convention are cordially invited to visit the iris gardens of Long Island, New York. There should be a wealth of bloom there, but be sure to come before the convention and not after. Peak bloom on Long Island should be several days before that of Central New York.

You will want to see the Peter Fass Garden, in Greenlawn, and his three beautiful irises, Chock Full, a beautiful violet self; Elegant Miss, a pale yellow bitone; and Green Fashion, the greenest iris I have seen so far. Cal Konzak, in nearby Patchogue will have some very worthwhile seedlings to look at, well worth the trip.

Wayne Snook is a coming breeder. On a small hillside plot he has more seedlings, and named varieties than one would believe possible in so small a space. Not too far away in Glen Head, Harry Kuesel has another small garden on one of those North Shore hills.

Bill Peck has a large garden of some four acres located at Oyster Bay, just off of Route 25A. He grows many types of iris mostly in long beds following the contour of the ground and has a large seedling bed near the road.

Alan Writer in Amityville is quietly collecting all types of species that will grow in this climate. Joseph Cermak in Freeport, grows oncos beautifully and in season his place is quite a show. He also grows a number of the more recent tall bearded introductions as does Walter Bara who also imports from Italy and other parts of the Mediterranean basin.

Last year in my own garden, the best display was a batch of old diploids that I bought for breeding, and now I find myself falling in love with them for their airy grace and ease of culture. So, if you have time come and see us, we will be most happy to have you.

Eastern Gateway to '58 Convention

DR. IRWIN A. CONROE, N.Y.

Region 2 members of the AIS are hopeful that members of other regions who will attend the 1958 convention in Syracuse will tarry on their respective ways to and from the convention to visit some of the many beautiful iris gardens to be seen en route. For example, from the viewpoint of blooming time most of the gardens in the Capitol—Mid Hudson Area of New York State will enjoy the same relative season as that of the convention tour gardens in the Syracuse area. Thus, members of Region 1 touring to Syracuse can spend additional travel time to excellent advantage visiting a number of gardens located near, or almost on, the main travel routes.

If the connecting artery between the New England Turnpike and the New York State Thruway were to be completed by next June, visitors would cross the Hudson near the home of our Junior Past RVP Ruth Blenis. A visit with the Blenis family, quite apart from the opportunity to see a number of recent and semi-recent introductions of irises and daylilies, would send the traveler on his way to the convention well inoculated with a generous sampling of New York State good will and hospitality. The Blenises live in Ravena.

If crossing into New York State is made via Route 20 from New England the route leads almost directly past the iris garden of Bert Hall, brother of beloved David. Bert has been obliged to give up much of his activities in iris culture, but a visit to his garden to see some of his seedlings would be well-repaid.

Southwest of Albany near Route 20 is the garden of the writer where a fair number of recent introductions may be seen among the eight hundred varieties in his collection. Such offerings as Frances Craig, Real Gold, Foxfire, Bang, Bearded Lady, Vengeance, Langsdale (Harry Randall's introduction comparable to Mary Randall), Snow Goddess, Black Taffeta, The Citadel, Sweetheart's Folly, Pink Panoply, Witch Doctor, Sable Night, Gypsy Classic, April Showers, Frances Kent, Tinted Porcelain, Waltz Time, White Ruffles, Red Torch, Belle Meade, Orchid and Flame, Kiki, Las Floristas, Bazaar, Dark Chocolate, Solid Gold, Hummingbird, Butterfly Wings, Violet Harmony, Rosa Barone, Palomino, Mary Randall, Sarah Lee Shields, Cinnamon Toast, Garnet Glow, Lady O'Fame, Black and Blue, Morning Bright, Bright Halo, Gene Wild can be compared, season permitting with their blooming habits elsewhere. A Fox seedling and a Carney seedling both winning honors this year, are also giving excellent promise here. This garden is in Altamont.

Nearby in Scotia is the compact but outstanding garden of Harry Shaffer, whose Heather Dell has won deserved acclaim. Harry has a number of the latest introductions growing in his garden where they yearly put on a brilliant display. Rehobeth, Pink Fulfillment, Dancing

Deb, Violet Hills, Contact, Green Ivory, Gold Torch, Dark Chocolate, Orange Apricot, Blue Throat, Top Hat, Big Ute are among some of the newer ones which attracted much attention this past season. Here is a garden where irises grow to as great advantage as can be found in any of the hundreds of gardens I have visited over the years.

To the north of Scotia in Burnt Hills is the garden of Mr. and Mrs. Charles H. Stewart. It is one of our newest commercial gardens but one of which our area is justly proud. Here the Stewarts have set up a display garden which is one of the best I have seen in any state.

To the west of Burnt Hills and near Elnora is the garden of the Roosas, Harriet and Al. Here again will be found a magnificent exhibit of irises new and old, ranging from the very newest available to some of the oldest still popular. In display beds the Roosas have planted dozens of late introductions many of them so new as to be only one and two-year clumps. Their commercial offerings cover a wide range of irises, large in rhizome, tall in stature, and vigorous in growth. It is a good commercial garden, well laid out, and permitting of easy access to all the individual varieties.

To the southwest of the Roosa garden, between the town of Broadalbin and the city of Amsterdam is the garden of Fred Ammerall. Fred is one of our top growers of iris and his garden reveals this fact. Here again one finds a generous number of new varieties interspersed by well-grown clumps of older favorites. Here, too, are beautiful Siberians as well as choice perennials, laid out over a generous expanse of lawns and gardens to top advantage. Fred's garden is unique in that its peak bloom comes as much as two weeks after the rest of our gardens have finished blooming. Late-comers returning from the convention will find the Ammerall garden a delight.

Should one be coming into our area from down the Hudson Valley he could well be tempted to visit the garden of the Van de Waters in New Paltz. It is true that Dr. Van de Water's interests in iris center mainly in dwarfs and medians but the garden in itself is a beautiful one in a natural stone setting.

Farther up the valley are the gardens of Herman Storey in Freehold and of James Stevens in Greenville. Unfortunately the Storey Garden is in the process of being moved to another location but there are still lots of individual varieties of iris to be viewed there. Here again is a demonstration of growing vigor and healthy increases.

Jim Stevens is our boast to fame in the hemerocallis field. His Pink Damask, Samarkand, Centurion, Tinker Bell, and others are recognized throughout the daylily world. Jim has thousands of magnificent seedlings, many of them well-deserving of introduction, but being a perfectionist, he is reluctant to introduce anything less than perfect.

Folks in the Capitol-Mid Hudson Area of Region 2 are convinced that pre-or-post convention visitors to our area will be well-repaid to tarry here en route.

Our Members Write . . .

I am not much of a writer nor am I habitually writing to Editors of periodicals, but since I am a member of the AIS interested in the propagation of this flower along with you and many more, and because I have been interested in agriculture and more so in particular with horticulture I would like to discuss one particular paragraph in your P. S. article on page 89 of the October issue of the Bulletin. Quote: "On the other side of the picture such ideas as the ploughless planting seem to be lost in the high weeds."

If you mean by that quotation that ploughless planting is entirely out, then I must disagree. Sure, Faulkner has modified his claims since publishing his book on "Ploughman's Folly," yet I think if you will investigate that the plough is not used as frequently as it used to be and many crops are planted where the soil has not been turned over for some years.

Are you familiar with what is being done in Ohio and Michigan? I had the privilege of touring those states some time ago with a party of agriculturalists from this area. I sure was amazed at what I witnessed in conservation, cover-cropping, contour ploughing, strip cropping, and trash farming. Trash farming is sowing the seed and planting directly into the trash on top of the soil, cultivation on top, no ploughing.

I was the guest of the late Louis Bromfield on his farm where he addressed our gathering. I think he was one of America's greatest thinkers and writers, and he discussed trash farming right on the field. He was willing to wager a large sum of money if the half field done by cultivating only and sowing directly into the rubble was not

superior to the other half of field done the orthodox way.

I may say there is plenty of trash farming up in this area and we grow good crops, and incidently give back something to the soil in the form of humus. This holds good in the small garden too. We must give back equal to that which we take away. This also includes flowers as well as grain or vegetables. The soil will soon become impoverished, plants will become sickly specimens ready to be destroyed by fungi, bacteria or what have you.

My extent at gardening amounts to one-quarter acre. It is a city lot highly developed over fifty years of building, not by applying commercial fertilizers nor even barnyard manure, but by composting and applying this to the plants at the rate of about 8 tons to the acre, each and every year. I grow 150 of the best peonies including several registered with APS, 50 to 75 iris, perennials, lilies, and some of my own seedlings in table iris recently introduced in AIS. I believe in fresh soil for plants. Soil with new life is more valuable in the long run than any commercial stimulant or fertilizer unless it is composed of an organic base.

You make reference to earth worms in your article. You may be surprised to know that I make use of the earthworms to do my cultivating for me around such plants as raspberries around which I have not dug for years. The ground about them is covered with a 6 to 8 inch mulch.

Well, this article may bore you, as it is not just something on iris, however, if iris do not respond for me in soil rich in humus I don't think I shall resort to stimulants.

—O. A. KUMMER
Preston, Ontario

In Memoriam

FORMER AIS PRESIDENT DIES IN NEW ENGLAND

William J. McKee, dean of iris hybridizers in New England, was 81 years old when he passed away February 27, 1957. He had retired from industry in 1944 and had since devoted his energies to his long continued program in horticulture. In addition to his work with the tall bearded iris, he has had similar interests with hemerocallis, daffodils, and orchids.

He said himself that his early hybridizing efforts were made with named varieties without any definite planning, and that the results were not very promising. He was a great advocate of line breeding and claimed his results were much more favorable when his program in this latter type of hybridizing began in 1940. His first iris introduction, Royal Beauty, was made in 1932. Among his many named varieties are to be included the following:



Ardeur	June Moon	Ponder
Augusta	Kim	Red Comet
Blue Angel Wings	Keystone	Redwyne
Butterscotch Taffy	Mary Vernon	Red Yen
Candy Girl	Mayan Gold	Royal Beauty
Ceylon	Miobelle	Snow Belle
Chinese White	Miogem	Starbeau
Eben	Monomoy	Temple
Fairday	Moontide	Terrific
Hywill	Orange Gem	Trim
Janet Butler	Pequot	Tryst
Jericho	Planet	Yukon

From this group, he considered Moontide, Fairday, Miobelle, Ponder, Pequot and Trim most outstanding as breeders. All of these were used extensively in his line breeding program.

Mr. McKee was born in Beaver Falls, Pennsylvania, the son of Cyrus P. McKee and Agnes (McKibbon) McKee. He is survived by his wife Clara B. (Little) McKee, two sons: William J. McKee, Jr., and Robert C. McKee, both of Worcester; two daughters: Jane E., wife of Leigh T. Coffin of Beatrice, Nebraska, and Mary E., wife of Rev. John V. Butler of Princeton, New Jersey; five grandchildren and one great-grandchild.

Mr. McKee was educated in Pennsylvania in the public schools and at Piersols Academy and also at Geneva College. His long and distinguished career in industry began in 1897 with the Pressed Steel Car Company in Pittsburgh. He began as a clerk and was promoted to chief clerk in 1902. He became general storekeeper with the Standard Steel Car Company in 1903. He came to New England in 1911 to become assistant to the president of the Osgood Bradley Car Company in Worcester. He became vice-president of this firm in 1917. The Osgood Bradley Car Company was consolidated with the Pullman Standard Company in 1930, and Mr. McKee continued as vice-president and director. He was also president and director of the Standard Tank Car Company of Sharon, Pennsylvania, and vice-president and director of the Keith Car Company of Sagamore and a director of the Van Motor Truck Company of Philadelphia.

Mr. McKee was a member and accredited judge of the American Iris Society for several decades, and he served as president of the Society from 1940 to 1942. Many of his iris received the H. M. and the A. M. awards of the Society. He was awarded the American Iris Society Medal for Distinguished Service in 1943 and also the American Iris Society Medal for Achievement in Hybridizing in 1954. Mr. McKee and Mr. George Pride together were the founders of this New England bulletin of the Society.

JAMISON R. HARRISON

* * * *

ORPINGTON FOUNDER PASSES AWAY

MURRELL, Olive, of the Orpington Nurseries, Orpington, Kent, died in the Westminster Hospital, London, on August 16th, 1957, age 69.

The death of Olive Murrell has come as a sad blow to the entire iris world. Since 1920 her name and that of the Orpington Nurseries have been synonymous, and she was nearly as well known abroad as she was in England.

She entered the iris business when great things were being done. "Dominion" had not long been raised and among her personal friends were great breeders like W. R. Dykes and A. J. Bliss and G. P. Baker and she was privileged to introduce many of their new irises. The very famous "W. R. Dykes," the first great yellow, was one of them. It was an exciting period altogether for not only were breeders busy in England, but in France and America as well. Soon were to come the famous yellows of the late Haworth Chadburn which Olive Murrell introduced. She was a lifelong friend of the late Prof. Sidney B. Mitchell and corresponded at length with many of the great American breeders. It was through this that so many of the Sass irises have been introduced into England.

In 1935 Olive Murrell was awarded the Foster Memorial Plaque, a special personal award given to those who contribute to the advance

of the Genus; and in 1940 she gained the Dykes Medal for her own great iris "White City." She had been on the Committee of the British Iris Society for over 20 years, and had also been a member of the Joint Committee of the R.H.S. and Iris Society for many years. She will long be remembered for her work as Registrar of the British Iris Society, and for her association with Charles E. F. Gersdorff who held a similar position in the American Iris Society for so many years.

NOTED HYBRIDIZER DIES IN REDLANDS

Clarence G. White, iris breeder, philanthropist, and prominent citizen died in Redlands, Calif., Oct. 22. He was eighty-eight years old and had been in declining health for some time.

Mr. White was born in Cleveland and prepared for college at Brooks Military Academy and was class valedictorian. Physically unable to take the regular course at Harvard University, he spent three years with the class of 1894 as a special student.

Then he went to Florida where his family owned a plantation. There he raised potatoes until 1905. The early potato business in Florida was developed largely from his experiments.

After his marriage in 1905 to Florence R. Fisk of Berkeley they went to Hawaii where he became the largest individual grower of pineapples in the Haiku region. He was a trustee of Maunaola Seminary, a school primarily for native girls, and a trustee of the Maui aid society, engaged in social and religious betterment work.

When he returned to the mainland after 11 years in Hawaii, he specialized in raising flowers.

The White family came to Redlands in 1919 and soon established their permanent home, Whitehill, at Sunset Drive and Mariposa. Mrs. White died in 1947.

In the twenties he interested Redlands school children in roses and made it possible for them to buy at a nominal sum Paul Scarlet climbers and Cecil Brunner bushes. Thousands of them are growing in Redlands yards today.

The Prosellis—the structure that provides the stage setting at the Bowl—was the gift of Mr. and Mrs. White. It took the place of the old band shell that had been moved from the site of the present Lincoln Shrine.

Prosellis means "before the seats" and was invented by the donors. More than a thousand concerts of the Redlands Community Association have been presented there.

In his iris hybridizing, Mr. White pioneered the crossing of the onco-cyclus with the eupogons. He sought to incorporate the exotic and beautiful markings and colorations of the former with the height and vigor of the latter. His seedlings were known the world over for their vivid and unique colors. He was a Life Member of the AIS and the recipient of the Hybridizer's Medal from the Society.

Post Script

I've been going to AIS Directors' Meetings since 1940, but the one on November 9, in St. Louis made a greater impression on me than any one I can remember. If our friends in the Pentagon had staged it, undoubtedly they would have dubbed it Operation Teamwork. That was the impression I got from every angle. Every move and every action seemed to say, "Look, we have a wonderful society and we are going places and doing things. Our people are simply tops. Let's get on with it."

Take, for instance the re-activation of our twenty-five dollar *Research Membership*. There is nothing new about the Research Membership. We have had it for years. In the early days of the society it was a means by which some of our more affluent members could make a donation to the cause. More recently, Dr. Franklin Cook, then president, called attention to it by subscribing to it personally, and earmarking the money to support Dr. Randolph's original scientific program. Today however, the Research Membership will take on a new meaning.

Somewhere down in the Minutes of the Directors' Meeting, published in this issue you will find the following statement: "It was moved and passed that the Executive Committee in co-operation with the Scientific Committee, be authorized to discuss and allocate funds available for the use of the Scientific Committee during the coming year." Therein lies a story and here it is.

In 1956, the Southern California Iris Society was host to the AIS Convention. Plans were made and costs were figured based upon certain activities which included a large amount of travelling by bus. The registration fee was set and some four hundred registrations were received. Later, however, it was found to be impractical to travel such distances by bus in the time allowed, and the bus trips were materially shortened to the tune of about five dollars per registration. At the end of the convention the SCIS found itself in possession of slightly over two thousand dollars in unexpended funds.

Our California friends pondered this situation quite some time and finally decided to give the money to the AIS for use by the Scientific Committee in the furtherance of research work on iris pests and diseases. Need for this sort of thing is ably discussed by Homer Metcalf in this issue of the Bulletin. What Homer says is eminently true, but he doesn't go nearly far enough. As a professional landscape gardener, your Editor could point out that the iris, especially the Tall Bearded, has practically passed out of the picture as a fit subject to be used in landscape design. The reasons for this are most evident; susceptibility to foliage diseases rendering the plant unsightly for a large part of the growing season; susceptibility of the modern Tall Bearded iris to fungus and bacterial diseases when planted in with other perennials; and, the relatively short season of bloom. While the AIS is growing in membership which neces-

sarily means increased growing of iris, it strongly indicates that the bearded iris is becoming a flower of specialists.

Dr. Lee Lenz and President Marion Walker presented to the Board a plan whereby the money donated by the SCIS would go towards the establishment of a graduate student scholarship at one of our leading universities for research on iris pests and diseases. This money will finance the scholarship for one year. But one year is not long enough to produce results. Projects of this kind usually take at least three years. To finance this project past its initial year, the Board has re-activated the Research Membership.

If two per cent of our members will support this move the project will be successful. One hundred, twenty-five dollar memberships will yield two thousand dollars for research after taking out five dollars each which is the cost of carrying a membership in the Society for one year.

One more point before I quit. Middle Tennessee is a poor area in which to grow roses. We have every bug here known to man and they all like roses. The Black Spot organism is in all soils here in every garden without exception. Mildew will appear several times each season due to our high humidity. Yet, in the face of all these things, I can recommend a rose garden to the amateur or the casual gardener without hesitation. Why? Because I can tell the gardener when, where, and with what to spray and know that if the person carries out the program, these troubles will be prevented or cured. I can't do that with bearded irises. We neither know how to prevent our troubles nor to cure them.

These are plain words, the speaking of which we are wont to avoid. I'm not mincing them but laying it right on the line. The Californians have started the ball rolling. The AIS Board has set it in the right direction. From now on out it is up to you, the members of the AIS.

THE EDITOR

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BULLETIN *of the* AMERICAN
Number 149
DEALERS
AND
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1958 ANNUAL MEETING

THE AMERICAN IRIS SOCIETY

SYRACUSE, NEW YORK

June 4-7, 1958

ADVANCE REGISTRATION PROCEDURE

Persons planning to attend are requested to register in advance so that adequate arrangements can be made for tour garden transportation, meetings, and demonstrations.

REGISTRATION FEE—\$27.50

Mail checks directly to Lowell G. Harder, Treasurer, Empire State Iris Society, 460 Bromley Road, Churchville, New York.

HOTEL RESERVATIONS

Reservations for rooms should be made directly with Hotel Syracuse, Syracuse, New York. Rates for single rooms range from \$7.00 to \$11.00; for double rooms with double bed \$11.00 to \$14.00; double rooms with twin beds \$12.00 to \$15.50; additional beds \$2.50. All rooms with bath and air conditioning.

The official program, tickets to all events including approximately 400 miles of garden tours, and other information will be available at the Headquarters Registration Desk in Hotel Syracuse beginning Wednesday morning June 4. The afternoon and evening program for June 4 includes garden tours, the iris show, and annual business meeting. These and other scheduled events are described more fully elsewhere in this Bulletin. No other notices of the annual meeting will be issued.

Additional information concerning plans for the meeting is available on request.

118 Sheldon Road
Ithaca, New York

L. F. RANDOLPH, Chairman
Convention Committee

Frontispiece: Broad paths and long beds of bearded iris planted with the contour of the ground characterize the lovely garden of Mr. and Mrs. F. W. Cassebeer, West Nyack N.Y.

photo by cassebeer

The President's Corner

As we approach the 1958 iris season many new avenues of interest for the iris enthusiast are being opened. Your Board of Directors has been studying for several years basic policy relative to the direction in which the Society should proceed. It seemed to all of those present at the Fall Board Meeting that the time had arrived to take positive action and to proceed with an aggressive program.

The basic issue may be stated in this way, "Do we want to be cosmopolitan in our thinking and embrace all iris and problems relating to all types of iris, and treat all branches of the iris family and those interested in them on an equitable basis, or do we wish to be a Society primarily dedicated to one branch of the iris family and allow those interested in other classes of iris to break off into small groups and promote their interests independently as best they can?"

After a good deal of deliberation and thought your Board of Directors by unanimous vote of those present decided to take the broad road and keep all iris interests within one Society as far as it is humanly possible to do so. We felt it a wise step to offer a friendly hand of co-operation to the Dwarf Iris Society, The Society For Louisiana Iris, The Spuria Iris Society, The Aril Society International, and the Median Iris Society. The leadership of most of these Societies have expressed a desire and willingness to co-operate closely with the American Iris Society in its organization and activities. We are now working in harmony to promote our mutual interests.

There are a number of reasons why your Board felt that the Society should move in this direction. I think you as members should know these reasons because when you know the actual facts I am sure you will agree with the judgment of the Board.

Several years ago the American Iris Society was asked by the International Horticultural Council to become the World Authority on all irises other than the bulbous section. This would mean that we would become the authority on registration, classification, and awards for all sections of the iris family other than the bulbous types. The Dutch were to have the authority in the bulbous area.

We accepted this responsibility subject to further negotiation with the International Horticultural Council regarding procedures and requirements.

Since our acceptance of this responsibility Mr. Harold Knowlton and Dr. George H. M. Lawrence have been working toward an agreement on Registration and nomenclature whereby the new 1959 Check List of the American Iris Society will meet the requirements of this new responsibility. Dr. Lawrence is the American representative on the Inter-

national Horticultural Council and Mr. Knowlton is the Editor of the Check List.

Further, Dr. Fitz Randolph in co-operation with Dr. Lawrence has prepared a new classification of the bearded irises. This new classification was discussed thoroughly by interested members at the Annual Meeting in Memphis last year. General agreement was reached among those present and the New Classification of the True Bearded Irises was adopted by the Board last November, as published in the January Bulletin. This Classification was presented to our British friends by Dr. Lawrence and has won tacit approval from them.

After steps were taken to develop an all-inclusive program in the area of registration and classification it seemed only logical to proceed in the same direction with awards.

The Median Iris Society and the Aril Society International had set up special committees to study the development of an Awards System within their own Societies for the promotion of their special interest. This posed the question, "Are we going to be the World Authority or are we going to break into several special interest groups and have no real authority?"

Your President discussed this matter with the leaders of the Median Society and the leaders of the Aril Society. They were agreeable to a plan of keeping all of the iris family under one roof and united. We appreciate very much their spirit of co-operation and sincerely believe that their action has made it possible for AIS to become stronger and more useful throughout the world.

As a result of these discussions Mr. Jay Ackerman presented to the Board of Directors several amendments to be made to the rules of the Awards Committee. These changes in rules were discussed deliberately on two separate occasions by the Board and adopted by unanimous vote of the ten members present.

The change in rules made was as follows:

The Board unanimously approved Mr. Ackerman's motion, as pertains to the High Commendation Award, under the Awards Policies and Procedures, as follows:

The portion that reads: "Each judge may vote for not more than ten such varieties, total, of all classifications" . . .

Be amended to read: "Each judge may vote for not more than ten Tall Bearded varieties, and also for not more than five varieties in each of the other classifications."

Further, it was moved and passed that a top award for each of the True Bearded Iris be designated; these awards to be activated when sufficient numbers of varieties become eligible for such awards and further, that similar consideration be given to other iris, such as Arils.

There has been considerable discussion in some circles as to what this change in the awards procedure does. It is important that I explain to you exactly what this change does. I hope you will follow me carefully because this matter is of extreme importance to the future of the Society.

First of all I would like to make it perfectly clear that the Board of Directors is perfectly aware that the main interest of a large majority of the membership of the Society is in the Tall Bearded Iris. This will probably always be the case and is as it should be. There is also a good percentage of the membership that has interest in the other areas and should be given opportunity to develop that interest.

Now let me point out what the change in awards rules will do for the Tall Bearded Iris. It will increase the number of H.C. awards given to the Tall Bearded Irises. Under the old rule there was a limit of ten H.C.'s for all classes. Under the new rule there are ten H.C.'s for Tall Bearded alone. This means that judges who are interested in voting for irises in other classes will have that privilege without robbing the Tall Bearded Section. In other words, the action taken adds to the prestige of the Tall Bearded Iris. Nothing is taken away.

As far as the other classes are concerned, this is permissive legislation. When enough introduced varieties have received H.M. the award will be activated. The new Awards for the various sections are established at the Award of Merit level. There is to be only one such award for each section other than Tall Bearded. There are twelve Awards of Merit for the Tall Bearded Section.

None of these Awards are to be established in 1958. Committees from the Median Society and the Aril Society are preparing an eligibility list for the Standard Dwarf Bearded Section and the Aril Section for 1959. Therefore there will be no change in the ballot this year other than an increase in the number of H.C.'s allowed.

As you can see by this explanation, your Board has done nothing revolutionary. It has merely established the structure through which the American Iris Society can co-ordinate all iris activities and in a true sense, live up to its responsibility as "World Authority."

The foregoing policy was established by the Board on November 13, 1957. Mr. W. F. Scott, Jr., was serving as our Official representative at the Annual Meeting of the New Zealand Iris Society at the time. Upon his return from New Zealand he took basic disagreement with the Board and resigned his offices after the President refused to rescind the action taken by the Board relative to the changes in the rules of the Awards Committee.

As president I did not feel that I had the authority or the right to rescind action taken by an unanimous vote of the Board. The Board is elected to represent the membership and should have final authority

by majority vote. I am sure that you will feel this to be the democratic way and the only fair decision to make.

We are very sorry that Mr. Scott felt it necessary to take this action. His place on the Board has not been filled and the way is still open for reconsideration. I have accepted his resignation as First Vice-President and Chairman of the Awards Committee.

On your behalf I would like to thank Mr. Scott for his many years of diligent service to the Society, as Chairman of Membership and Chairman of Awards. We wish him well in whatever area he wishes to participate in the future.

Mr. Jay C. Ackerman has accepted the Chairmanship of the Awards Committee as of March first. He will administer the Awards System as it has now been established with the help of others on his committee. We appreciate greatly Mr. Ackerman's willingness to accept this responsibility in the Society.

New Chairmen have been appointed to other important areas of activity in the Society also. Mr. J. Arthur Nelson of Omaha is the new Chairman of the Exhibition Committee and is doing a fine job. Mr. Robert Carney of Memphis is the new Chairman of the Membership Committee and has the membership campaign going in high gear. Mr. Albert Lauck of Toledo is reorganizing the Photographic Committee and making new plans for the promotion of all types of irises. Dr. John R. Durrance is the new Chairman of the Test Garden Committee created by the Board last fall. Plans should soon be under way for the development of this program.

This has been a rather lengthy President's Corner. In it I have attempted to explain carefully to you the direction in which the American Iris Society is traveling. Your Board is convinced that the right direction is to give each group equal opportunity within the Society according to its needs and that we should keep "One Iris World."

It is my very sincere feeling that the Board has taken the wise path to the future, that the Society will be much stronger by exerting a little effort to hold the various interests group together. There is strength in numbers and in diversity of thought. The American Iris Society will become stronger as its outlook becomes broader.

MARION R. WALKER, *President*

Tribute to Genius

MOLLY PRICE, N.Y.

Wells County, Indiana, an L shaped rural area just south of Fort Wayne and near the Ohio border, has given us that quiet revolutionist in iris hybridizing, Paul Howard Cook. Here, in 1891, near the village of Poneto, Mr. Cook was born, and here he lives simply and works soberly as he has done all his life. For thirty-five years the significance of his iris seedlings has steadily increased; now the world comes to his door. Another case of a man with a better mousetrap!

Mr. Cook's boyhood attention was early turned toward hybridizing, both by the influence of his gardening parents and the books of Liberty Hyde Bailey, which he read while still in his teens. His first major interest was in the hybridizing of small fruits, but he was soon drawn toward irises. Though he had already gathered a considerable collection of these before World War I, it is doubtful if he made many crosses before his return from that war.

It was not until 1936, after fourteen patient years of hybridizing, that he made his first introductions. Surprisingly enough, these were not tall-bearded irises but two hybrids, the reddish, small-flowered, slender-stemmed Tampa, and the pale yellow Keepsake. These were both progeny of *Socrates* crossed with *I. flavissima*.

There are two major, widely overlapping audiences for irises. One, finds satisfaction and enjoyment in handsome flowers, large, medium, or small. The other is as concerned with evaluating the progeny of accurate and complicated interspecific crosses, pointing the way to never-before-dreamed-of hybrids, as in the beauty of the present results. I think everyone will agree that Paul Cook's introductions win the applause of both audiences.

He had, by 1936, established both his red and blue lines, and the following year introduced from the red line his first tall-bearded iris, E. B. Williamson. This won the Roman Gold Medal in 1938, the year he introduced the famous Sable from his blue line. It is said that Sable would have won the Dykes Medal if Great Lakes had appeared one year later. Be that as it may, this iris is still—twenty years later—both a popular and a breeder's favorite. (It was #44 in the popularity poll in 1957.)

The sixteen irises which Mr. Cook introduced during the following eight years were all tall-bearded, though you may be sure that this remarkable man, who was a mail-carrier in the mornings, was carrying on simultaneous research in many other sections of the genus. (The Japanese section is the only one in which he has done no experimenting.) During these years he gave us, from the red and blue lines, Captain Wells, Copper Rose, Action Front, Flamely, Redward, Worthington, Indiana

Night, and Three Cheers; the pink Majenica, Salamonie, and Pink Reflection; and the orchid Dreamcastle and Harriet Thoreau. The majority of these received either H.M., A.M., or both.

A rough estimate of the quality of the introductions in this early period may be formed from the fact that they are all still available in commerce today. It is not surprising that Mr. Cook was awarded the coveted Hybridist's Medal in 1945, at the end of his first ten years of introductions.

But he was just warming up! You must remember that, until very recently, iris breeders and/or hybridizers, did not have the chromosome counts of the various species available to them, and in consequence had produced such a profusion of sterile triploids, 44 chromosome intermediates and so on, that many of them were avoiding this field. At a time when even Mr. E. B. Williamson, Mr. Cook's close friend, who was very much interested in making species crosses was still using mixed pollen in his crosses, Mr. Cook had already begun his thoughtful and careful survey of the entire genus, speculating on the possibilities and problems of using the wild species for the improvement of garden forms.

From Robert Schreiner he had obtained the three named forms of pumila: Nana, Sulina, and Carpathia; which Mr. Schreiner had grown from seed he had gotten from the University of Transylvania. At the same time Mr. Cook asked Mr. Schreiner if he had any Austrian pumilas, and Mr. Schreiner gave him some of these larger, clumsier forms which he had also raised from seed.

The latter were not very long-lived, so Mr. Cook continuously raised bee seed from the best plants in order to keep the species going. After about twenty years of this selective breeding, he has developed some very fine selections in the Austrian types. Sky Patch is one of these. One of the early seedlings he crossed onto San Francisco and produced the first plants of a class later to become known as Lilliputs. One of these seedlings which Walter Welch crossed with chamaeiris provided the beginning of Mr. Welch's interesting dwarf lines. (That topnotch dwarf, Sparkling Eyes, came from this line of breeding.) Mr. Cook also sent pumila pollen to Geddes Douglas to use on his tall-bearded irises. And everyone knows what came of *that*! Thus, Mr. Cook's pioneering work set in motion a great new wave of experimentation in both the dwarf and median fields.

At about the time he received the Hybridist's Medal, Mr. Cook crossed a blue and a yellow pumila onto his own pale blue tall-bearded seedling, #10942, a half-sibling from the same year as Distance, and produced the now world-famous quartet of standard dwarf bearded irises. Three of these, Greenspot, Baria, and Fairy Flax were introduced in 1951; Brite, in 1955.

It was Geddes Douglas, however, who had invented a name for these new things under the sun: the pumila pollen on his tall-bearded irises had produced middle-sized progeny so enchanting that Mr. Douglas called them Lilliputs. Today, Mr. Cook and a host of amateur breeders

are doing advanced generation work on this type of small iris.

Very early in his career, Mr. Cook perceived that some of the important qualities in the modern tall-bearded irises came originally from the dwarf species. It is difficult to imagine the modern tall without, for instance, the inhibitor responsible for the dominant whites, or the branching and the blue beards which came originally from *aphylla*. Mr. Cook saw that the possibilities of such hybridizing had been scarcely touched. He collected as many of the species as he could, and started working them into his lines.

From the beginning, all his work has been precision-planned and organized toward definite goals. He early had seeds and plants of the various *mellita* and *reichenbachii* types. His *mellita* crossed with *Wasatch* was perhaps the first *mellita*-tall-bearded hybrid. (I was delighted to find this charming little iris, with yellow standards and lavender falls, blooming in the Median Iris Test Garden in Indianapolis.) Mr. Cook crossed one of the yellow *reichenbachii* seedlings with pollen from *Shining Waters*, and thereby revolutionized the future of iris breeding: from this cross came an odd—even ugly—little hybrid, which anyone else might very well have composted. Mr. Cook's clear vision saw in its pale yellow standards and streaky falls the making of new *amoena* patterns, and, truly prophetic, named it *Progenitor*.

It was not until 1956 that he released *Melodrama*, the first introduction from this already world-famous line, a beautifully formed *Dreamcastle-Progenitor* seedling with very pale lavender falls and deep pinkish lavender standards. This year, from this same line, comes the greatly admired blue *amoena*, *Whole Cloth*, (#12555) which received H.C. last year under number, and *Kiss-Me-Kate*, an early-blooming iris, intermediate in size, and of a pale, pale yellow called 'cream' in iris circles, with a definite blue border on the falls. This is the most delightful iris I have ever seen; it has the ineffable charm of a child's light-hearted laughter. Among the new seedlings is #11155, a pure white with a solid violet-blue border around the falls, a beautiful result of advanced generation breeding from the *Progenitor* line crossed on *Blue Rhythm*. The hybrid seedlings from *Progenitor* crossed with *pumila* are little fellows, five to nine inches tall, in odd pastel colors.

In the early years, it is said, visitors to Mr. Cook's garden were wont to smile at his peculiar looking seedlings; now, visiting irisarians from other countries come in awe and admiration to stare at progeny the like of which exists nowhere else in the world. It is not only the *Progenitor* line which evokes such admiration from garden visitors: Mr. Cook's second most famous experiments are the difficult ones involving the homely, muddy-yellow little species, *I. imbricata*, from which he has evolved a line of reverse *amoenas*. The first of these, *Wide World*, with light blue standards, white beard and falls, was introduced in 1954. Greater color contrast has developed in subsequent generations.

To backtrack a bit: in 1948 the red tall-bearded *Relentless* was intro-

duced; in 1949, Pink Bountiful. Since then, Mr. Cook has been even more severe than usual in his standards, and has made only eight introductions of tall-bearded irises in the eight years: Tranquil Moon, his only yellow, Morning Bright, Pretender, the Dykes winner Sable Night, Sky Above, Dark Boatman, Deep Black, and Melodrama.

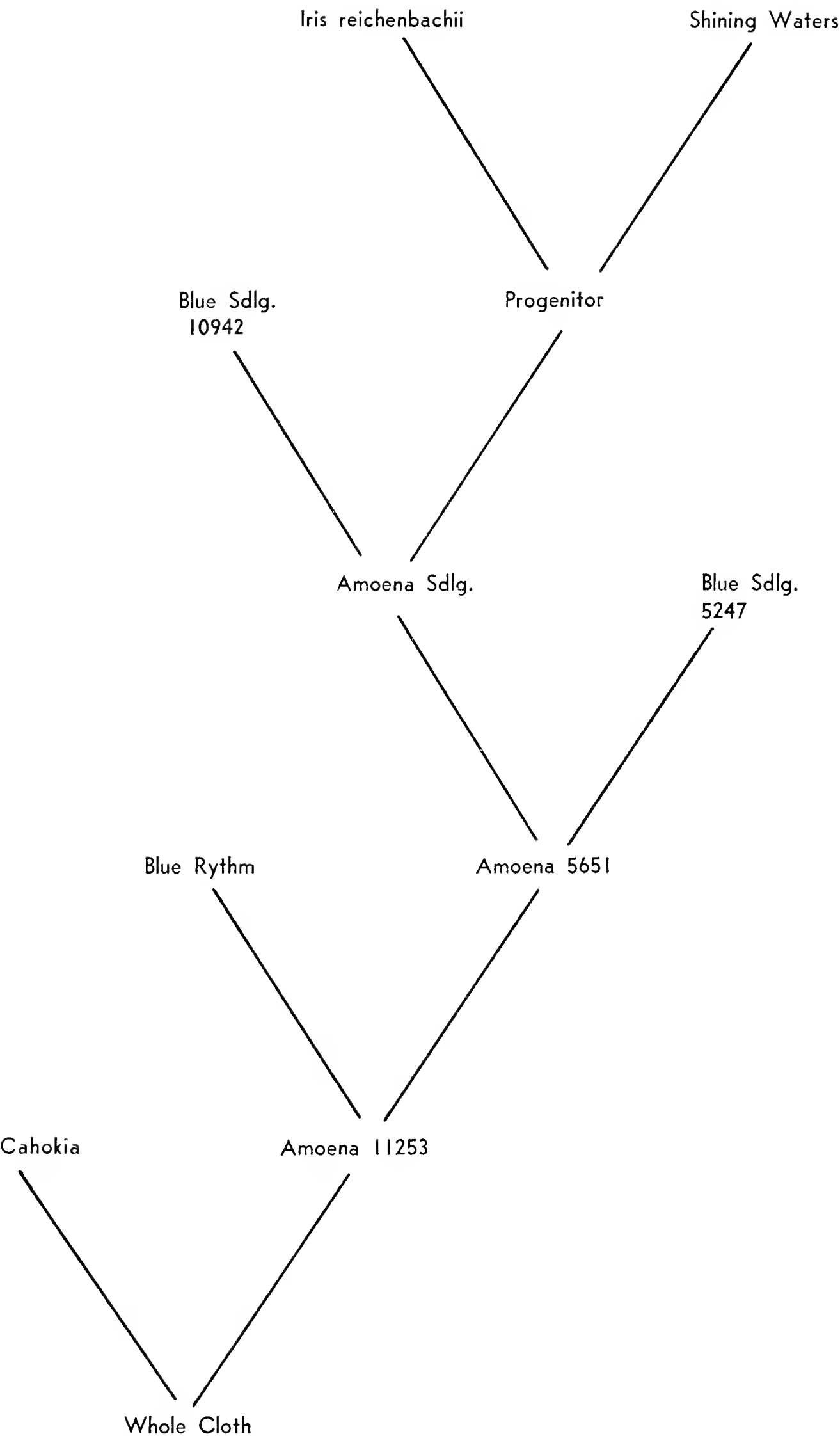
Among his recent miniature dwarf irises, as a result of his efforts at improving the blue color, we have the true blue pumilas Remnant and Sky Patch, and the pumila hybrids Blue Lilt, a greenish blue, and Stint, a very dark purple with blackish falls. Other recent introductions have been the dwarfs, Inchalong, and the rosy Promise; and the deep red intermediate Florinda, as well as the previously mentioned quartet of lilliputs. More introductions should be forthcoming from his seedling bed, where there is to be found, for instance, #154, a lovely six-inch blue seedling from Fairy Flax crossed with a blue pumila. A far-reaching result of this breeding is an upset iris-timetable: some of these bloom just after the early dwarfs; some with the late tall-bearded irises.

This year, one of Mr. Cook's introductions is the deep, true-blue tall-bearded Allegiance. For this triumph, he crossed a Distance seedling onto Dark Boatman. By a pleasant coincidence, this beautiful iris, with Sir Michael Foster's Blue Boy nine generations back in its pedigree, was registered in 1957, the same year the British Iris Society awarded to Mr. Cook the Foster Memorial Plaque, a special personal award to those contributing significantly to the advance of the genus.

His iris introductions are the visible signs of this unassuming man's high accomplishment; the invisible story lies in the increased understanding of iris genetics which his patient work and inspired thinking have given to the world.

The American ideal of genius—a man of scientific imagination who does not scorn to work with his hands—is exemplified in Paul Howard Cook. When I made what amounted to a pilgrimage to his home, I found him digging in the earth. He stopped and talked a long time about iris breeding. Each time I think of him I see him leaning forward in his chair, poised and purposeful, his face animated and eager, his words careful, considered, and restrained.

This, I treasure.



Virus Diseases of Iris

R. V. TRAVIS¹

Viruses are disease agents too small to be seen under the ordinary-light microscope. Some can be seen and photographed under the electron microscope, which reveals their characteristic sizes and shapes. Viruses are obligate parasites; *i.e.*, they can multiply only in living tissue of a suitable host, not in dead host tissue or on artificial substrates.

Viruses attack bacteria, insects, birds, and mammals including man, as well as higher plants. Over 300 distinct viruses have been described in plants, and the number is continually increasing. Some plant viruses, such as the bulbous iris mosaic, can infect only a few closely related species; whereas others, such as aster yellows, curly top, and cucumber mosaic viruses, infect many different species in several plant families. Plant viruses regularly persist in vegetative parts of a diseased plant; they are increased and distributed by division and propagation of diseased plants. In contrast, few plant viruses pass through true seeds. A few plant viruses are spread from diseased to healthy plants on contaminated hands and tools as man handles the crop: *e.g.*, tobacco mosaic and chrysanthemum stunt viruses. All plant viruses are transmitted across a tissue union in plants like roses that can be grafted or budded.

Although man in his horticultural operations transmits some viruses, transmission by insects and other arthropods must be regarded as nature's own means of disseminating these disease agents. Details about the exact mechanism of virus transmission by insects are not known. There appear to be several different types of transmission. Some plant viruses are able to reproduce inside insect vectors. The vectors of some are highly specific. Certain other types of virus, such as those causing mosaics, are transmitted very readily by many species of insects, typically aphids. One particular aphid, the green peach aphid, is known to transmit more plant viruses than any other.

In working with viruses the investigator needs large quantities of test plants sensitive to the virus in question. In many cases these may be seedlings of the plant he is studying. If sufficient numbers of such seedlings are not available, he may use plants of another species that react characteristically to the virus under study. Such is the case in the work with some of the iris viruses.

Because of the difficulty in germinating iris seed, it has been convenient to work with another plant of the iris family; this belongs to another genus, *Belamcanda*, commonly called blackberry lily. Of the 5 viruses now known to attack iris, 3 infect *Belamcanda* and produce characteristic symptoms that differentiate them. The two other iris viruses

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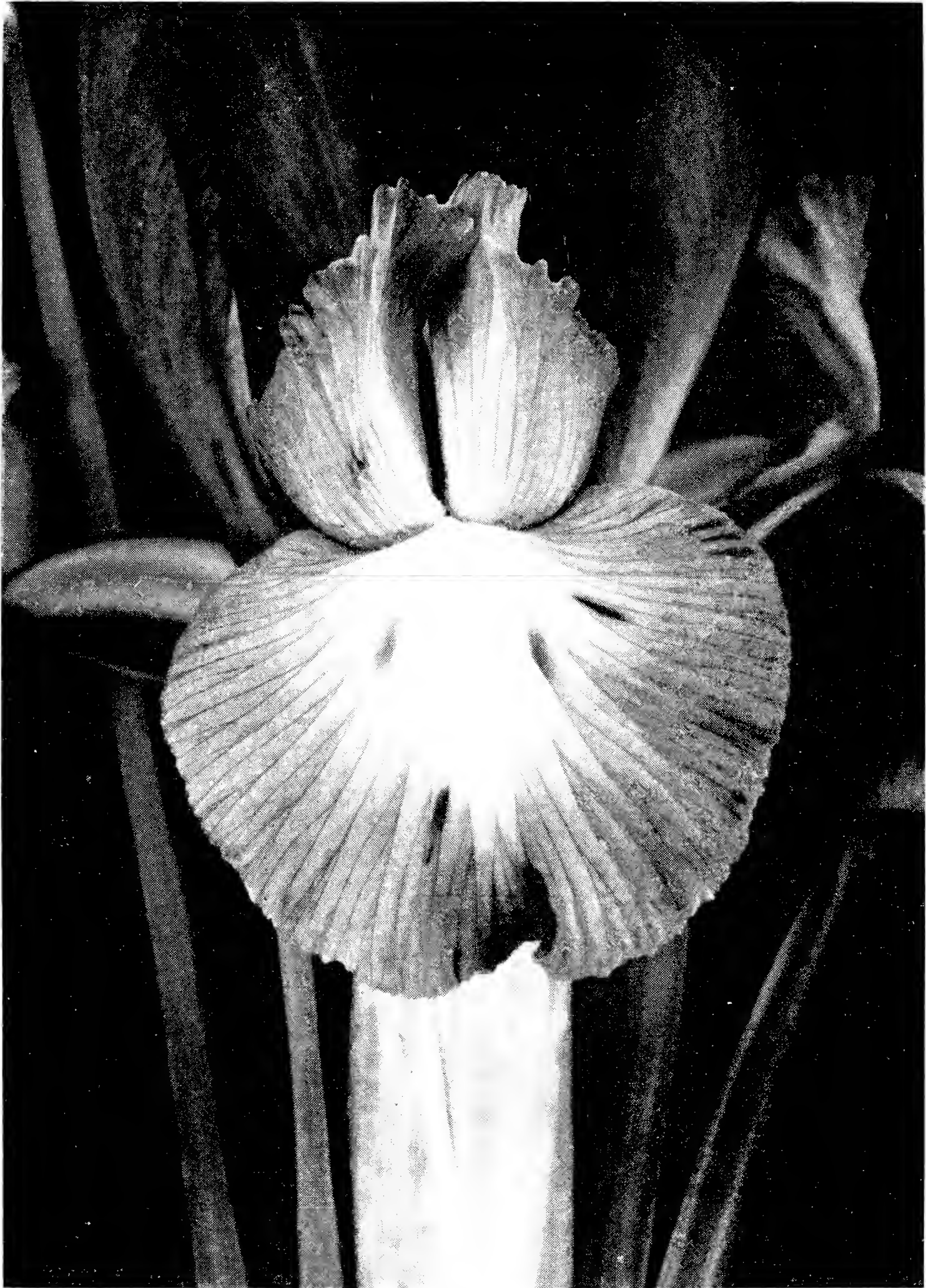


Figure 1. Symptom of the bulbous iris mosaic in a bulb iris flower.

do not infect *Belamcanda*. One of these infects tobacco, beans, and several other test plants. No test plant besides iris, however, is known for the virus of bulbous iris mosaic; therefore all indexing and property determination with this virus must be done with seedlings of bulbous iris.

One usual symptom of bulbous iris mosaic virus in bulbous iris is a yellow streak mottle on the leaves and bud sheath. The flowers are distorted and have teardrop or stripe markings on the falls (Fig. 1). The plants may be dwarfed. The bulbous iris mosaic virus is transmitted by aphids. Many of its properties have not yet been determined because of the difficulty in obtaining virus-free seedlings of bulbous iris and of the lack of another suitable test plant.

The second virus disease of iris is the bearded iris mosaic. One symptom of this disease in *Iris pallida* is a prominent yellow and green mottling in the young foliage as the leaves mature (Fig. 2). The young leaves are generally yellowish with streaks and angular blocks of light yellow. Many varieties of bearded garden iris are symptomless carriers of bearded iris mosaic virus. Because of the lack of uniform symptom expression and the difficulty in germinating seeds of the bearded iris it was necessary to use *Belamcanda* seedlings as test plants. The distinctive symptom in *Belamcanda* is well-defined systemic mottling in the form of blotches and flame-shaped tongues of light yellow with angular blocks of cream interspersed. Occasionally this mottle may be seen 5 to 6 days after the plants are infected, but generally it can be identified with confidence only after 7 to 10 days. This mottling becomes very severe, the yellow areas turning brown and later collapsing. However, the bearded iris mosaic virus is not lethal to *Belamcanda*.

On the foliage of *Iris aurea* the beardless iris mosaic virus causes a mottling of yellowish streaks 1 to 2 centimeters long and less than 1 centimeter wide (Fig. 3). This virus, like the bearded iris mosaic virus, infects *Belamcanda*. The symptoms of the beardless iris mosaic in *Belamcanda* are similar to those of the bearded iris mosaic at the end of 7 to 10 days, but the beardless iris mosaic virus is lethal to *Belamcanda* in 30 days. After the first symptoms are evident, the light-yellow markings enlarge and soon the plants become yellow, turning brown as time passes and finally they dry up. The beardless iris mosaic virus is also lethal to *Iris dichotoma* and to the bulbous iris Imperator, killing these within 30 days.

The fourth virus to infect iris is called the *Iris fulva* mosaic virus. Its symptom in *Iris fulva* is a mottle of light green with dark green blocks in leaves in active growth. The older dying leaves show large green blocks on a yellow field. The *Iris fulva* mosaic virus also infects *Belamcanda*. The symptom in *Belamcanda* is a mild mottle with uniform light-yellow and green markings. The two colors tend to be sharply demarked and blocky in outline. The symptom takes about 14 days to develop and even then it is difficult to distinguish in *Belamcanda*. The mottling remains mild even after several months.



Figure 2. Symptom of the bearded iris mosaic in *Iris pallida* leaves.

The fifth virus reported in iris is tobacco ringspot virus. We have not been able to associate any symptoms in iris with this virus. The test plants used for this virus are beans, tobacco, snapdragons, and *Chenopodium*.

All the viruses listed except tobacco ringspot virus are transmitted by aphids. It is not known how the tobacco ringspot virus moves from one plant to another in nature, and we have not been able to transmit it to iris seedlings experimentally. The other viruses are handled rather easily by the usual mechanical-transmission technique that the virologist uses. All four mosaic viruses are transmitted by *Myzus persicae*, the green peach aphid. All but the bearded iris mosaic virus are transmitted by *Macrosiphum solanifolii*, the potato aphid. The beardless and the *Iris fulva* mosaic viruses were transmitted experimentally by *Aphis fabae*, the bean aphid. The bearded iris mosaic virus was not transmitted by *A. fabae* or *M. solanifolii* in similar tests.

Sixty-two iris plants of 14 different species were indexed for the viruses of bearded iris mosaic, beardless iris mosaic, *Iris fulva* mosaic, and tobacco ringspot. The bearded iris mosaic virus was isolated from 4 different species: *Iris chameiris*, *Iris germanica* cultivar² Great Lakes, *Iris pallida*, and *Iris tectorum*. The beardless mosaic was recovered from *Iris aurea* only, and the *Iris fulva* mosaic virus from *Iris fulva* only. The tobacco ringspot virus was recovered only from plants of *Iris germanica* cultivar Great Lakes.

The effect of these various viruses on iris is not fully known. The teardrop markings on the falls of the bulbous iris definitely reduce the commercial value of the flowers. The bulbous iris mosaic virus also causes dwarfing of the plants, which also reduces the value of the flowers. The horticultural disadvantage of the other viruses on iris is not fully understood. Only by testing known cultivars under controlled conditions, with some plants healthy and others infected, shall it be possible to estimate the harmful effects of these viruses.

Although chemical controls are effective against some iris diseases such as rhizome rot and leaf spot, the only control of virus disease that we have is protection, preventing the plant from becoming infected. It is therefore highly important that the aphid population be kept to a minimum. Theoretically absolute aphid control would prevent the spread of the viruses of iris from one plant to another. In view of this it is highly desirable to keep seedlings well separated from the rest of the iris so that they will have less chance of becoming infected. While the distance from other iris required for planting seedlings has not been determined data from other crops can be used; planting seedlings 300 yards from all other iris should reduce the chance of their becoming infected with viruses. This is especially important in the case of new cultivars that are to be introduced, because infection with the virus

² Cultivar is the term used to distinguish cultivated varieties from botanical varieties.



Figure 3. Symptom of beardless iris mosaic virus in *Iris aurea* leaves.

diseases may cause some horticultural disadvantage. Applying insecticides for the control of aphids in other crops has reduced the rate of virus spread in certain cases, but it is by no means the perfect control, for the vector may transmit the virus while acquiring the insecticide. The very nature of these viruses is such that the aphid loses its ability to transmit them after very short periods so that healthy iris planted at a distance from diseased ones will tend to escape infection. In spite of the fact that iris growers do not have to contend with disastrous virus diseases it still seems worthwhile for the breeder in particular to segregate his seedlings so that he may introduce healthy new cultivars. If a new seedling is planted directly in the field among other iris it may become infected in its first season and thus all divisions from that cultivar will always be infected with a virus.



A Convenient New Method of Soil Fumigation

JOHN HARVEY, JR.

President, Delaware Valley Iris Society

Iris growers are becoming increasingly aware of the benefits of treating soil before planting so as to kill harmful organisms in the soil. Some compounds kill the fungi which cause certain iris diseases, others kill nematodes, and still others kill weeds. The most useful compounds are those which kill all kinds of harmful pests in the soil before the crop is planted. These are known as soil fumigants.

Guy Rogers has described in Bulletin #142 and #145 the results obtained with methyl bromide as a soil fumigant. Although his treatments were carried out primarily to control scorch, he reports that his "treated beds look wonderful as to size, color, growth, and increase." No nematodes were detected in the treated beds, nor was rot present anywhere after treatment. No mention is made of weed control, but methyl bromide fumigation generally kills off most perennial and annual weeds.

Fumigation of soil with methyl bromide presents certain difficulties. Methyl bromide is a gas sold as a liquid in small pressurized cans. The area to be treated must be covered with a gas-tight cover, the edges of which are joined to the ground with gas-tight seals. Special equipment is required for releasing the gas from the cans and distributing it properly under the cover. In densely populated areas, there is always the danger that a child or pet might crawl under the cover and be killed by the poisonous fumes. The hazard and the equipment required limit the use of methyl bromide for the home gardener. The difficulties involved in treating large areas limit its use for the commercial grower.

A new chemical, sodium methyldithiocarbamate,* presents both home and commercial growers with a safe, easily applied soil fumigation treatment. The home gardener dilutes the required amount of the compound with water and distributes it uniformly with a sprinkling can over a measured 100 sq. ft. area. The area is sprinkled immediately with enough additional water to wet the surface thoroughly (about 15-20 gallons). In damp soil the chemical breaks down to a gas which diffuses through the soil killing weeds and harmful fungi and nematodes. The water which is applied immediately after the treatment carries the chemical into the soil and also acts as the seal which prevents escape of the gas into the atmosphere. About one week after treatment the soil is cultivated to allow any remaining vapors to dissipate slowly. Seven to ten days later the soil is ready for planting. On larger areas the chemical may be applied by hose proportioner or garden sprinkler. Fields of a commercial grower may be treated by injecting the chemical into the soil as the field is plowed. Complete directions are given on the labels of the containers. As usual with any garden chemicals, the manufacturer's recommendations and warnings should be read and followed carefully.

I have just completed moving my iris collection from its old location to my new home. Early in July the beds were prepared carefully. I turned over the soil and incorporated lime, fertilizer, and mushroom compost in the required amounts. The soil was well worked, slightly damp, and in fine condition for planting. For each 100 sq. ft. of bed I used 3 pints of VPM Soil Fumigant, which was applied by the sprinkling can method. Two weeks later I began to plant.

The most noticeable result has been the control of weeds. The soil was full of quackgrass, nutgrass, wild onion, sheep sorrel, and crabgrass. The areas treated with VPM have remained free of weeds for six months. Areas which were dug up at the same time but not treated had to be hand weeded three times during the same period. The VPM treated areas should remain free of perennial weeds, although as seeds of annuals are carried into the beds some weeding will eventually be required.

Only healthy plants were moved into the treated beds, and these should remain healthy. VPM Soil Fumigant is known to control nematodes, damping-off fungi, mustard seed fungus, and many other disease organisms. In any event, the fall growth of iris in the treated beds was vigorous, normal, and disease-free.

* Sodium methyldithiocarbamate is sold as VPM Soil Fumigant by E. I. du Pont de Nemours and Co., and as Vapam by the Stauffer Chemical Co.

1958 — INTRODUCING — 1958

FOR MRS. W. J. HINKLE

DEMETRIA—(Zara x Regina Maria) You'll fall in love with this gracefully ruffled medium blue iris on sight. This beautifully formed flower has a faint hint of lavender in the broad flaring falls. The blooms are well spaced on a 36 in. stalk. Flowers have heavy substance that withstands wind and weather. Mid-season. Net \$25.00

SYMPHONY—(Hinkle Sdlg. C-24-1 (Cahokia x Azure Skies) x Melissa) This clean light blue iris is to the eye what a serene pastoral symphony is to the ear. The flower is a self with a mere suggestion of a light area at the beard. There is real beauty of form. Substance and branching are excellent. Height 36 in. Mid-season. Net \$25.00

Other Hinkle Introductions

HELEN NOVAK—(Zara x Regina Maria) A large commanding deep blue with blue tipped beard. The full round flower holds its color. Standards are closed, falls near horizontal and there is a pleasing amount of ruffling. Substance and branching are ideal. This bold iris deserves a place in the garden. Height 38 in. Mid-season. \$25.00

WHITE BOUQUET—(Spanish Peaks x First Affection) A truly fine huge creamy white self, including beard. Buds and underside of falls are green. Hafts are extra wide. Branching and substance excellent. Medium to late bloom. 38 to 40 in. H.M. '57 \$25.00

MELISSA—(Zara x Bee) Large medium to dark blue self. The non-fading flowers have domed standards and horizontal falls which are heavily ruffled. Excellent substance and branching, sturdy stalk. 38 in. Mid-season. \$20.00

FOR ALBERT G. LAUCK

HOLD THAT TIGER—This striking novelty is a large yellow with vivid maroon stripes in the falls giving it an unmistakable tiger effect. A deep orange beard enhances its beauty. Good substance and fine branching. Stalk 40 in. Mid-season to late. Net \$20.00

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ON YOUR WAY TO THE 1958 CONVENTION.

HARVEST LANE IRIS GARDEN

5142 HARVEST LANE • TOLEDO, OHIO

Introducing for 1958

MISS ST. LOUIS—(Salmon Shell x ((SQ 72 x Sdlg. 44-67) x Pink Formal) X Flirtation
This deep heavily substantced apricot-pink self possesses all of the necessary requisites required and expected of a new introduction. Vastly different from most pinks, MISS ST. LOUIS is not only a mid-season to late performer, it is heavily shirred, laced and ruffled. Sdlg. #55-11. H.C. '55\$20.00

BARTOW LAMMERT—(Spanish Peaks X Cloudless Sky)
A superb huge globular semi-ruffled and flared pure white self with a snowy white beard. The flowers are long lasting due to the extra thickness of the petals. Sdlg. #54-18A. H.C. '57\$15.00

OTHER INTRODUCTIONS

MARION MARLOWE: A chaste white self possessing a magnolia-like quality that warrants its extreme popularity. The broad blossoms are completely white throughout with the exception of a "touch" of green in the throat. Standards are ruffled, full, domed, and closed; falls are waved, gracefully semi-flared and wide. The beard is snowy white. H.C. '54; H.M. '57\$15.00

FLIRTATION: An intense deep pink self with a fiery red beard that is one of the deepest pinks in commerce. Large flowers, excellent substance, smooth hafts, 40" sturdy and well-branched stalks. H.C. '50; H.M. '56\$15.00

JOAN CRAWFORD: A celestial blue self with a silvery cast. Standards are firmly closed and domed; falls semi-flared and attractively rippled. Honeysuckle scented, it has a white-tipped lemon beard. H.C. '52; H.M. '56\$15.00

ENCOUNTER: A very large flower with golden yellow standards; falls snowy white, evenly edged and trimmed same color of the standards. Flowers are much larger than similarly colored iris and in addition, are attractively waved. H.C. '52\$12.50

STARLIFT: A heavily ruffled, deep cornflower blue self; smooth and broad-petaled, the hafts are wide and smooth. It has heavy substance and is an excellent breeder for ruffled iris. STARLIFT is illustrated on Page 9, Bulletin #144. H.M. '56\$8.00

NIGHT PATROL: Rich, smooth, deep violet-blue self with matching beard. Falls are stiffly flared and rigidly held. H.C. '50; H.M. '55\$5.00

ONE RHIZOME EACH: Flirtation & Joan Crawford\$25.00
Flirtation, Joan Crawford & Marion Marlowe\$35.00
Flirtation, Joan Crawford, Marion Marlowe,
Starlift & Encounter\$50.00

CLIFF W. BENSON

1201 VERL PLACE SAINT LOUIS 14, MISSOURI

Garden Manners . . .

PEG DABAGH, Calif.

Knowing how many of you have treasured collections such as Dresden figurines, or perfectly lovely ash trays and containers in which you arrange flowers on your lamp and coffee tables, I just thought to myself: How would YOU like it if I came to your house in one of those, alas, so popular coats known as a "shortie"? That is, to a tea or cocktail party when the room would be crowded? Exactly!! By the time three or four of us got to mixing and mingling and moving about, with our good large serviceable, purses on long handles flaring about, along with our coat-tails, it's a pretty sure bet we'd one or all of us manage to sweep off a figurine, or damage a few of the key flowers in your bouquets. And wouldn't you be pleased? (Especially as you were having another party the next day for just as special people.)

I'm sure none of you would wear such a coat or carry such a purse to such a party. But you do just exactly that in our gardens. And believe me, the irises are just exactly the right height to catch it from both coat and purse. What could be more heart-breaking than that inevitable, unmistakable CRR-A-A-CK as an iris breaks? Especially when you expect more people and judges and customers and possible introducers the next day? And that's your only bloom stalk? Or what's far worse, you are introducing the iris for someone else and that's the only bloom stalk!

Sweaters or jackets are just as warm and an envelope purse is just as large. They aren't apt to break anyone's heart and flowers at one fell swoop. Straight skirts are nice too.

Sure, we all love to have pictures taken of our flowers. But we also love the flowers blooming behind the camera fan. Maybe as you are taking a picture of your choice you just sort of inadvertently step back to get a good shot, or to let someone pass. Again that sickening CRR-A-A-CK! There went the grower's pride and joy! The best stalk!

I think the time to take pictures, *after you've asked permission*, is when the crowd clears out. You certainly don't expect everyone at a buffet supper to back off and let the food get cold while you photograph it, do you? Without your hostess' permission? Other people come to look, too, you know, and haven't any more time than you.

I am viewed very much askance for having said out loud—very loud and in a meeting or two—that I would no more dash down the rows of even Tom Craig's or Melrose Gardens' seedlings than I would open their private mail. Unless they asked me to. You wouldn't go into someone's house and open their closets and dresser drawers, would you? Well? Anyhow, I, for one, am not for wasting my time rushing down

rows of dogs. Believe me, if a hybridizer has anything worth seeing, he'll tell you—and where it is and all about it—and HOW!

One of my pet abominations is to see anyone who always has to “feel the substance”! That's the end of their qualifications as a judge of irises for me! If you don't know by looking, then you don't know. Better get a few and learn. Again, for two reasons, I wouldn't touch anyone's flower unless they, in their pride and delight, said: “Just feel it!” One: they'd know I didn't know. Two: if I, and twenty others felt it, by the time the poor thing had lived through the “feeling” it would be so worn out it wouldn't have substance or anything else. Look around, girls and boys, at some fabulous introduction after a day of “feeling.” Sad, isn't it? Doggy falls, aren't they? And tomorrow that poor grower has to show his jewel to a lot more people. And what can he say? Just go take what you think is the iris with the best substance ever and “feel” those falls twenty times!

Me, I came into this heavenly world scared silly to begin with, but I learned real fast to watch and listen to the people who really know and are welcomed with open arms. Good manners, I found, are good manners, indoors or out. You don't go barging into people's houses uninvited at any time you choose, and when you are invited you go at the hour they set. They have to eat, sleep, and do their housework and gardening too. Also nothing can upset anyone more than having a carefully allotted day just completely thrown off. Probably there are dozens of crosses that have to be done that day, or not for a year. The flowers are only there so long, you know. Also a batch of seedlings to be gone over, decisions made about them, and all those tagged, and descriptions and records written up in the Book. There are photographs to see, pictures for the catalogue to be taken and all the other people to fit into an already frantically crowded program. There are gardens to visit and a seedling he may be asked to judge or introduce and those he wants to see and buy.

If and when your opinion is asked for, for heaven's sake, give an honest answer! That's what he wants. You don't have to say, “I think it's a dog.” You can certainly say you have seen too many of that particular type that season, or suggest that he look at one of someone else's that is better in your opinion, or whatever reason you have. If he didn't want to know he wouldn't ask you.

I think it's a hanging offense to stand and rave and rant about some seedling, that isn't that good, in the mistaken idea you're making a small or new hybridizer feel good. What you're doing is really no favor. You can certainly say it's a nice or pretty flower and, if it is a true remark, comment on how many people seem to be getting that type. Or say you love another seedling that is better. He isn't dumb; he'll thank you for the hint, but he won't thank you after someone else has told him, or he sees the others; he'll be provoked and disgusted with your maneuver or opinion.

In most gardens the grower has well defined paths for you to follow and usually has what he wants seen in the best possible view from them. For goodness sakes, stay on the paths! And, oh grower dear, if you don't have paths, please put them in!

How many times have you seen a whole covey follow a grower down a narrow row, one by one, only to halt and shudder like an ancient freight train when he stops; only to find that they can neither see nor hear what's going on? Just look down that row after they come out! Count the damaged plants. Not nice, is it? If he'd wanted you all to follow him he'd have said so. He probably only went in there to pick one bloom to show you. If he does invite you to follow, do be careful not to plough through any-which-way. I have actually seen people caught in a line like that go right through the plants, shortie, purse, camera, and all! Either go down the row next to him on either side from the beginning, or don't go. And for mercy sake, have some consideration for those behind you. Go a little beyond the grower. You can see and hear and so can a few others.

As I said, stay out of where you aren't invited.

Flattering as it is to have people ooooooh! and aaaaah! and stand around chatting, for goodness sake, go home or somewhere when you've seen what he considers worth seeing. Don't worry. You won't miss a thing from it.

On the other side, you can't imagine how utterly worn out people, especially judges, get in iris season. If you have something you think is really good, get a couple of opinions you respect. Then when the visitors and judges come, take them directly to see it. Remember, those are your babies and your prime interest, but it's very doubtful if another soul is interested in all of your seedlings. It's worse than people going around with dozens of pictures of their kids. Usually the victim can sit down to view *them*, and also doesn't have to see other dozens at the next stop, and hasn't seen unlimited numbers all season.

To sum it up, I think the main point is to be just as considerate and honest with the other fellow as you can. You'll be welcomed with open arms, and people will love to go to your garden too.

ERRATA: Iris Ruth Dormon erroneously credited to Caroline Dormon in Awards and Honors, Bulletin No. 147, 1957. This variety was originated by Mrs. Lillian Trichel of Shreveport, La.

Notes on the Variegata Pattern among Diploids

JEAN G. WITT

Where would modern iris be without *I. variegata*? We can pick up any catalog and view the great array of its present day descendants, which includes yellows, whites, pinks, blends, purples, bicolours. Truly as Hans Sass said, "All colors except blue come from this flower." The fact remains, however, that we still know relatively little of the "how and why" of these contributions. Breeders of tetraploid amoenas and variegatas are able to produce good ones only with great difficulty, while—believe it or not—down among the diploids, and Table Iris in particular, we have more variegatas than we know what to do with. Examination of a series of diploid crosses involving variegatas and their white and yellow derivatives has thrown some light on the nature of these difficulties, and some interesting points have turned up.

Diploid tall bearded iris have been cultivated in Europe for centuries, and before they were brought into cultivation natural hybridization in the wild must long ago have brought them to a state comparable to that found among the wild Louisiana iris of today; as witness the large number of color types described by early botanists as species, and the wide variety of flowers catalogued by Lemon in the 1840's. In his travels through southern Europe Dykes found wild hybrids of *I. pallida* and *I. variegata* where the two species were sympatric—growing together—in northern Dalmatia.

From Dykes to the present day breeders have agreed that amoenas are variegatas with the yellow dropped out. As Dr. Randolph pointed out (AIS Bull. 122: 78, July, 1951) these probably arose as F₂ segregates from pallida-variegata crosses. Such crosses also sometimes produce yellow selfs, and occasionally whites; but these occur not merely because the two species have crossed, but because each species was already heterozygous for lack of anthocyanin as the result of some mutation long ago. The little diploid yellow, Aurea, perhaps represents the mutation that occurred within *I. variegata*. A nearly-white plicata is possibly the comparable mutation on the *I. pallida* side, though this is somewhat less certain. Such a variety as the white, Innocenza, said to be an Italian albino of *I. variegata*, would thus be better viewed as a segregate than as a true sport, since the chances of two simultaneous mutations removing both blue and yellow are remote.

It is known that this white is hypostatic to yellow, and that the yellow is incompletely dominant, so that dosage effects are visible, the heterozygote Yy being pale yellow. It would seem that the variety Leucographa, mentioned by Douglas from Dykes (AIS Bull. 121: 9-18, April, 1951) and commented upon by Dr. Randolph (AIS Bull. 122: 78, July, 1951) may have been this pale yellow rather than white, since variegatas appeared in the F₂ seedlings from the cross with *I. pallida*.

The inheritance of yellows is not a simple matter. This is easily demonstrated by selfing such a flower as the rich yellow Dykes Medal winner, Pluie d'Or. In a very limited population of 6 seedlings I once had four color classes appear: 3 yellows, one pale yellow, one white, and one flower with yellow standards and white falls bordered yellow with the merest trace of plicata dots at the haft. One can see that the white could be yy, and the pale yellow Yy, but Pluie d'Or cannot possibly be YY and give us all these other types. So it is quite plain, as suggested by A. H. Sturtevant ten years ago, that a second pair of genes for yellow must be involved, of which the white and yellow flower is the representative. The white suggests that Pluie d'Or must be only heterozygous for each of these yellows and its very bright rich color results from the combined effect of both pairs.

Flavescens an Imbricata Derivative

Dr. Randolph informs me that we do indeed have a second yellow present in our diploid variety complex, which might have come in from *I. imbricata* through the old widespread pale yellow Flavescens, which is said to be an *I. imbricata* derivative. This yellow can be seen in diploid flowers as the ground color for plicatas such as Pixie, and as ground color for variegatas (my example of this is unfortunately unidentified), as well as by itself. It may be the same one we see in our tetraploid yellow ground plicatas and by itself in such things as Elsa Sass. In general, however, we do not really know which of our diploid yellows belong to which type or which may be heterozygous mixtures like Pluie d'Or. Nor is there as yet any exact information on their breeding behavior, and this is certainly an area where further investigation is in order. It should be mentioned that anthocyanin purple appears somewhat different against these two yellows, tending toward crimson red with the possible imbricata yellow, and more toward rusty red-brown with the variegata yellow.

Complications among the yellow plastid pigments are nothing however, to those to be found among the blues and purples in the anthocyanin department! The big problem in breeding amoenas is not how to keep them from being variegatas, but rather, how to keep them from becoming blue bicolors. The difficulties are necessarily more acute among tetraploids where one must deal with four doses of every gene; and this may account for the comparatively large numbers of diploid amoenas and variegatas as opposed to the very limited numbers—until recently—of tetraploid varieties in these colors.

Hans Sass commented at least as long ago as 1934 that variegatas were recessive. Dr. Randolph pointed out in his letter to Douglas (AIS Bull. 122:78, July 1951) that blue selfs ordinarily are dominant to variegatas, and the hybrids may segregate in a simple 3:1 ratio. But this dominance is often incomplete, and blue bitones or neglectas may represent the

heterozygous condition. The white in the standards of amoenas is a recessive white. Dykes' history of the *I. pallida* x *Leucographa* cross which produced Black Prince, a dark purple bicolor, which in turn selfed gave the amoena, Richard II, and variegatas is an excellent illustration of the reappearance of this recessive white in the F_2 .

Which brings us to our first questions concerning anthocyanin: why did a pale blue flower and a nearly white flower with somewhat lined falls produce an F_1 seedling which was a purple bicolor, so much darker than either parent that it was named Black Prince? Black Prince is evidently a dark purple bitone because the *pallida* parent brought in the W allele allowing the purple falls of the original *I. variegata* to show. The anthocyanin of *I. pallida* on top of this made a really dark fall color which carried over into the F_2 combination that produced Richard II.

We might also ask why, since the anthocyanin of *I. variegata* occurs in veins, do we have flowers like the diploid Mildred Presby and most of our tetraploid amoenas in which the anthocyanin is nearly solid on the falls? Integrades between the two types can be pointed out among the diploid variegatas, with varying amounts of purple washed in between the veins.

It has been suggested that the variation in the expression of one variegata pattern from open lined hafts to solid color filling in the space between the veins as well as in some amoenas and variegatas may be part of an allelic series. Whether this series might extend to include the "eyed" types such as Winken and Blinken and Pfauenauge is not known.

Strangely enough, "extra" anthocyanin also appears in crosses of some diploid yellows and whites with amoenas and variegatas. From a cross of the ivory and purple amoenas Mildred Presby with Pluie d'Or I obtained only three of the variegatas I was expecting—14 more were bicolor blends with varying amounts of purple in the standards; one was a neglecta; there were no amoenas, possibly because the population was not large enough. From a cross of Pluie d'Or with the yellow and red variegata, Fro, there appeared 14 variegata blends with tan standards and pink falls, and 8 mediocre yellows, part of which were stitched like plicatas.

Evidently our diploid amoenas and variegatas are not all genetically alike. Some, like Mildred Presby, are homozygous for the white standard-purple fall variegata pattern; while others, like Fro, are heterozygous for a recessive white, possibly the one of Aurea previously mentioned. If we call the amoena pattern V, then this condition with no anthocyanin in either standards or falls would be v. Pluie d'Or is apparently heterozygous for v, which is hardly surprising, since it traces back through Shekinah to Aurea. These variegata whites (or yellows) are characterized by the presence of small dark purple veins at the haft of the

falls. They also occurred from a cross of Pluie d'Or with Golden Flare, to be discussed later.

But what caused the anthocyanin to appear in the standards of these two sets of seedlings? It seemed to me that the Pluie d'Or-Mildred Presby seedlings were a diploid counterpart of the tetraploid seedlings described in AIS Bulletin 130: 60-61, July 1953, and 119: 56-58, October 1950, for crosses of Elsa Sass and Matterhorn with Wabash, where many bicolors also resulted. I decided that this must have something to do with plicata carried by Pluie d'Or. I felt reasonably certain about Pluie d'Or being a plicata, not only because of the faintly dotted seedling which occurred from selfing it, but also because this seedling crossed with an orchid and white dotted plicata had given me orchid plicatas on yellow ground. Pluie d'Or x a purple with plicata sister seedlings also had produced a plicata, and there is a 1956 registration, Minette, (Beardsley), which is a plicata from Pluie d'Or x the purple Monarda. So it seems that Pluie d'Or not only has two yellows, but also two whites, one of which may well be the same plicata white that is in the tetraploids, Elsa Sass and Matterhorn. The extra anthocyanin seems to have appeared because all plicatas, even the white ones, contain one or more doses of the dominant allele of the recessive white standards of the variegatas. Pluie d'Or was an unfortunate choice of recessive white, because it apparently owes its outward appearance to the plicata white and not to the variegata white—which suggests that the plicata white is epistatic to the variegata type of white.

Which Parent Carries Variegata

The question then arises, is plicata white also epistatic to V, variegata, the allele of the v-white? My suspicions of this were first aroused when variegata blends popped up in a cross of pink blend Golden Flare with Pluie d'Or. This set of seedlings consisted of 4 yellow selfs, 2 white selfs, 3 pink blends similar to Golden Flare, 2 rose and wine bicolor blends, 1 tan and brown bicolor, 1 near-amoenia with falls smudged purple, and one yellow counterpart of this amoenia with falls smudged brown. Which parent then, was the carrier of variegata? It would seem that the pink blend, being essentially a self, could hardly carry variegata, since the heterozygous condition is visible as the bitone or neglecta, as we have seen earlier. Was it then, carried by Pluie d'Or?

Two other crosses throw additional light on the situation. Clara Noyes, a pinkish variegata blend, x Eros, a pink blend similar in appearance to Golden Flare, gave two seedlings, one a pink blend, and the other a crisp lemon yellow with the merest trace of red stripes in the center of the falls, as if it had been intended as a variegata and missed. This yellow was backcrossed to Eros and the seedlings which survived our November 1955 freeze bloomed last year: 8 poor yellows with falls veined red in varying amounts, more so than the yellow parent, but hardly

variegatas; one pale pink blend; 1 variegata blend with raspberry falls. Decimation by the freeze might have altered the ratios, but the proportion of yellows seems a little large for a backcross. My guess is that the lemon yellow was a plicata type.

Eros x Dawn, a creamy white with purple lined hafts, produced 1 pale yellow, 3 pink blends, and one variegata with pale yellow standards and pink lined falls. Dawn, however, with its much-marked hafts cannot possibly be a plicata white; it presumably is the variegata white, and so should be recessive to variegata.

This throws us squarely back to the pink blends as the carriers of variegata—and if so, how do they manage to do it? This fascinating possibility has occurred to me—namely that the pink blends may be genetically variegata blends, with the gene for variegata pattern suppressed by the white from plicata. My few crosses hardly do more than suggest that this may be so—further investigation is certainly in order, as this point, if true, is of very considerable importance. Not all pink blends of course, would carry variegata, as some would doubtless have the white allele instead.

No Tetraploid Variegata-Plicatas

Have you ever wondered why we have no flowers with the white dotted standards of plicatas and the solid dark falls of Wabash? We have seen that the crosses of amoenas x the white and yellow plicata relatives gave mostly blue bicolours or variegata blends in the F_1 , both in diploids and in tetraploids, because the plicatas supplied the blue which was missing from the standards of the variegatas. Theoretically it ought to be quite possible, among diploids at least, to arrive at an F_2 combination of plicata with variegata in one plant in 16. The question remains, however, does this combination actually result in a flower of this theoretical appearance—or does plicata exert some effect on variegata falls which makes them something less than solid? Denis, the French breeder, was supposed to have produced “variegata-plicatas,” of which Demi-Deuil is an example. Demi-Deuil has lines in the center of the falls, as well as the familiar plicata dots on both standards and falls, as does the lighter and more attractive triploid Aksarben; but their pedigrees are unrecorded, and we cannot be sure they really are this 1 in 16 type. Demi-Deuil apparently has no tetraploid counterparts, whether because lines are unfashionable, or because of the very, very much slimmer chances of the double recessive showing up in the F_2 in tetraploids, I cannot say.

If, as the crosses of Pluie d'Or and the pink blends suggest, the plicata white is epistatic to the white variegata allele, and quite possibly even to variegata itself—is there a possibility that plicatas in general are epistatic to variegata? Last summer I bloomed a set of grey and magenta variegata blends from Jean Cayeux x a tetraploid lavender and

white seedling plicata whose parentage is (Amigo x Spring Cloud) x (Clarabel x Wabash). This seedling, alas, has abortive anthers and cannot be selfed. A glance at the pedigree of Jean Cayeux reveals its many variegata ancestors; it also has a diploid yellow, Darius, on both sides. This cross seems comparable to the one of Golden Flare with Pluie d'Or, where variegata blends appeared—in fact one of the seedlings from the diploid cross looked very much like Jean Cayeux, even to the blue flush in the center of the falls. This blue flush also occurs on the falls of the small white diploid La Neige—and I cannot help but wonder if it could be the variegata showing through—as if a variegata of the Mildred Presby type were not quite completely obscured by the plicata white, the blue flush being comparable to the trace of red lines on the plicata white seedling from Clara Noyes x Eros mentioned above.

Does Marquita with its striped pink falls represent some effect of plicata on variegata? Seedlings of Marquita type were reported from crosses of tangerine pinks (descended from Spindrift) x plicatas in the 1957 Bulletin of Region 11. Could my smudged amoenas from the Pluie d'Or x Golden Flare cross represent the effect of some other plicata allele on variegata—is this thin, uneven distribution of purple on the falls in some way connected with what we see in Aladdin's Wish, which also has Pluie d'Or as one parent? Again, we can only speculate. Certainly the entire field of plicata-variegata crosses will bear much more investigation.

Nothing is known either of the breeding behavior of Kaleidoscope, the sport of Honorable in which the purple color occurs in irregular splashes. Disturbances are not uncommon in variegatas; erratically patterned falls and purple-splashed standards also sometimes occur in Clara Noyes, Mildred Presby, and Fro. One wonders if the same gene visible in Kaleidoscope could have been passed down to tetraploid Daffy from the diploid yellow ancestor of Alta California.

An interesting sidelight on these types appeared in my garden last summer when a small, bright yellow self, tentatively identified as Sherwin-Wright, sported back to variegata—first just a single purple fall on an otherwise yellow flower; then a variegata flower on an otherwise yellow-flowered stalk. Oddly enough, this variegated flower was a perfect match for one of my old unidentified variegata varieties, both in color and pattern. There is a good chance that this variegata is Honorable, as it is the common old one in Washington. All pollinations of the mutant flower with either Sherwin-Wright or the old variegata failed. However, Sherwin-Wright has put on this performance before, and I hope it will again. Dr. Randolph tells me that these phenomena are probably caused by an “activator gene” which causes disturbances in the gene for purple pigment; in Sherwin-Wright the effects simply occurred earlier in the plant's development. Investigation of freaks is probably of little importance, except that it would be desirable to

know which family lines of variegata derivatives carry this activator gene so that we can avoid it.

The points discussed here by no means cover all the questions we might raise concerning inheritance in variegatas. At best they supply only a few small pieces to a great interlocking puzzle. But I hope they also demonstrate the very real need for further investigation, particularly at the diploid level. I am convinced that despite many years of hybridizing with *I. variegata* derivatives we have not yet seen everything that this one small plant has in store for us.

The American Iris Society

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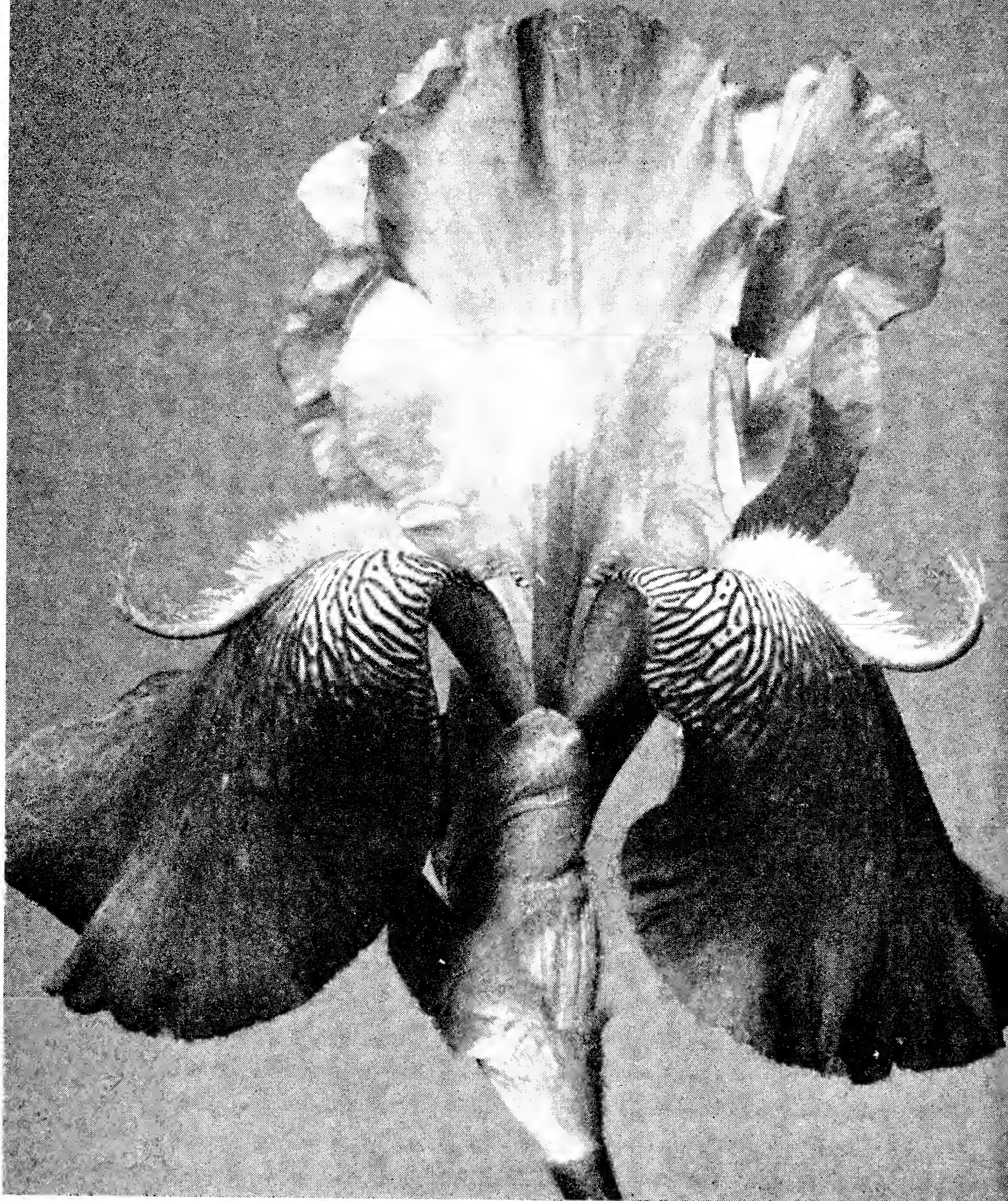
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HORNED ROSYRED. A striking red bitone with very prominent horns. Standards are pink, lightly flushed golden-bronze from the base. Falls crimson with prominent gold network at hafts. Beard heavy, bright yellow, ending in a prominent horn $\frac{1}{2}$ to 1 inch long, often curved sharply upward in a most interesting and distinctive manner, as shown in our illustration. This is the brightest colored of all horned iris, and at the same time the most useful to the enterprising iris hybridizer, particularly since its pollen is very abundant and fertile and in addition it sets seeds readily. The flower has a spread of about 6 inches, making it the largest of all horned iris. This was produced by crossing a horned seedling with pollen of Pink Formal. Horned Rosyred is an introduction of Lloyd Austin, the originator of the Horned iris.

photo courtesy rainbow hybridizing gardens

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INDIANA

More — About Amoenas

WALTER WELCH, Ind.

Herewith are some of the results from experimental crosses which I have made, and which I hope may add some light to the problem of breeding amoenas. Some of these results may be evident to other breeders of amoenas, but again, they may not, as from the general opinions extant it seems that breeders are still thinking of amoenas in terms of an overall unit of inheritance. This kind of thinking has undoubtedly greatly restricted the progress of breeding in this class of iris.

The idea of a unit pattern inheritance has been handed down to us from the time of Bliss, who stated that Amoena forms come from Amoena crosses or crosses of neglecta x variegata. And we often hear of amoenas being merely variegatas with the yellow factor left out. This is fine as far as it goes, but it is not the entire story.

I have long since proposed the theory of the "spot pattern" as applied to the inheritance in pumila and the dwarfs, and have felt that although the amoena pattern in talls is derived from a different source, yet its inheritance was similar in the talls as in the dwarfs. I believe I have now proven this to be true.

The thing which prompted me to conduct this experiment was a report by Dr. Werckmeister that the white parts of tall amoena showed evidence of containing pseudobase anthocyanin, which I confirmed in pigment tests here. This pseudobase presence is associated with the dominant whites, as apparently the recessive whites show no indications of this condition, thus it suggested a dominant white condition in respect to amoena white. This further suggested that if amoena were dominant white, why doesn't it erase the anthocyanin spot on falls? The answer might be that the anthocyanin of the spot was a different type of anthocyanin from the normal tall blue anthocyanin and thus the inhibitor might not affect it the same as tall anthocyanin. This occurs in pumila which has an inhibitor of tall anthocyanin but does not suppress the blue of pumila. Therefore I made crosses to learn the nature and inheritance of this pattern.

At the start I wish to say that only a few of the seedlings bloomed this year, not enough for determining any ratios of inheritance, but I believe, sufficient to establish a few tentative rules. The main cross from which I obtained information was L-2 X Louvois. L-2 is a dominant white with one dose of inhibitor gene. Louvois is, of course, a reddish-blend with the spot pattern on falls. Of this cross which bloomed, there were 8 creams and 5 neglectas, all with the spot pattern showing. However, the cream forms had a white spot instead of the customary violet or anthocyanin color.

In diagnosing this cross I think we can assume that those creams are simply dominant whites with the addition of some yellow which is

a part of the red of Louvois. The inhibitor would have no effect on the yellow pigment. For a small progeny I would judge that the ratio of 8-5 is close enough to the expected 1-1 ratio which one dose of inhibitor would give.

In this as in other numerous crosses which I have made and from reports from other breeders, it is pretty firmly conclusive that the spot color and spot pattern factor are two separate and individual factors, though probably closely linked, but when the spot color is absent through either inhibitor action or absence of the color gene, the spot remains white. Every one of these cream seedlings showed the white spot pattern.

In view of this, it would suggest that varieties like Leading Lady, Golden Fleece, etc., are merely ordinary *variegatas* which contain the inhibitor gene, though for assurance we must explore further to fully confirm this assumption.

However, the fact that all seedlings showed the spot pattern in an outcross, in the first generation cross, indicates that the factor for the spot pattern in talls is dominant. When I speak of spot pattern this includes *amoena*, *neglecta*, *variegata*, and other spots such as we find on Louvois, Winnisheik, et cetera. All are of a common origin and genetic constitution.

As we have proven that the inhibitor gene will erase the anthocyanin spot of talls, it stands to reason that the white parts of *amoena* are not a dominant white, therefore the conclusion must be that the factor for the white self or whole basic flower color is independent from the spot factor. It would also assume that in this case the flower may be any color, yellow or blue or red, or white, and in the case of *amoena* it is simply a recessive white. Thus in *amoena* we would have a recessive white flower with a dominant violet spot on and overlaying the white base color. This may be confirmed by observing the underside of the falls on any of these forms.

It might help to clarify and further support this view by noting that Bliss reports a cross of *neglecta* x *variegata*, both diploids, giving four *amoenas* out of sixty-six seedlings, which is a ratio of 15-1, which I believe is the expected ratio for a dihybrid or two gene factor.

The significance of the above is that we need no longer to restrict our breeding program for *amoenas* to strictly *amoenas* and *variegatas*, but may use any variety or seedling which has the spot pattern factor. The color of the self pattern or of the spot is of no consideration, as we can apparently bring in any form having this spot and in further generations expect a white recessive form to turn up, which we can then use directly in our breeding work. This will greatly expand our potentials in this field of breeding.

I wish to further call attention to another matter involved in this *amoena* breeding. It concerns haft markings which are one of the trademarks and obvious faults in this class. We must recognize the

fact that the spot in amoena derives from a merging or coalescing of the veining or lines of I. variegata. This merging starts at the bottom of the fall and as the concentration of dosage or distribution or modifiers or whatever gene is responsible for the merging, accumulates, the solid spot enlarges, finally reaching up to the haft as a solid spot. The accompanying haft markings are merely the extension of the veins which make up the spot. They can be eradicated in only one way, which is to further increase the coalescing until it covers the entire haft. This is further substantiated by the results of continued inbreeding finally eliminating the haft markings; and in cases to form a fall without edging, whereas any outcross will immediately result in more conspicuous haft markings and a receding of the spot. The obvious recommendation is to have both parents with as strong a dosage of the spot factor as possible.

Now before I close, there is one item which might be questioned, and that is the case of Flavescens, which is a diploid with white spot on the falls. Certainly there is no inhibitor to account for the absence of color in the spot. To explain that I will call attention to the fact that I. variegata is a yellow with a white spot pattern with violet veins overlaying the white spot. In certain segregates the gene for the anthocyanin colored lines will be absent, leaving intact the white spot. This may also account for the white spot in the tetraploids in certain instances, but it is evident that inhibitor action will attain the same visible results.

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WICHITA FALLS, TEXAS

Another Thought Concerning Amoenas

DR. WILLIAM G. MCGARVEY, Penna.

A number of years ago, in a talk to an AIS convention, Sydney Mitchell said that he had asked Dave Hall about bicolor pinks in his garden. When the reply was that he had none, Mr. Mitchell said that he did have one from a cross of ((Isabellina x Spindrift) X Hall 42-5) and that he wondered where it came from.*

Frequently, it is just such a casual statement of a problem that sparks others into wondering about it and also into collecting evidence in an attempt to find an answer.

Here is some evidence.

Last Spring I bloomed a cross between a Mitchell iris and one of my own pink seedlings, (California Gold x 53PI). Among the seedlings was one fairly good yellow amoena which I numbered 55-56 Y ameo I. I also bloomed another cross between (53PI x SunRay) and obtained a near amoena with pink falls and almost white standards which was numbered 55-56 Neg Ten I.

In the AIS Bulletin 134 Ron Chamberlain of Ontario is reported to have a pink amoena seedling, 53-18-A, which came from (Hi-Time x Pink Salmon).

Jesse Wills reported in an article "Breeding Yellow Amoenas" in the AIS Bulletin 130 that he had obtained a yellow amoena from (Salutation x At Dawning). He further reported that he obtained a creamy yellow, 65-45, from the cross (Rapunzel x Golden Eagle) and that when he crossed 65-45 with an amoena involving Fair Elaine the cross resulted in a big amoena with white standards and medium yellow falls. Furthermore, 65-45 produced good amoenas when crossed with three different amoena seedlings.

Now the thing of interest about the crosses mentioned, except the last ones by Wills, is that amoenas or near amoenas have resulted from crosses between plants that were neither amoenas nor immediately derived from amoenas.

Thanks to Dr. Fitz Randolph and his committee we know something today about the recessive behavior of the amoena genes. Among the things known is the fact that amoenas do not appear until a full complement of amoena genes is present. Hence it seems likely that all of these plants that produced amoena progeny must carry the amoena genes. It would be helpful to know where they came from. But before we attempt to make an estimate of the source it will be interesting to check on any relationships among these irises that must certainly carry the necessary genes.

Study of the pedigrees reveals that there are many relationships

* Reported in AIS Bulletin 114, p. 12.

among them. For example, the pollen parent of Mitchell's pink bicolor was the Hall seedling 42-05, and my own 53 P I came from a cross between sister seedlings that in turn came from (Hall 42-05 x SunRay) and SunRay itself contains Hall 42-05 in its pedigree.

Chamberlain's amoena came from (Hi-Time x Pink Salmon). Hi-Time, a Hall iris, came in turn from a Hall cross (42-07 x Premier Peach) both of which came from the Hall seedlings (40-34 x 39-62) and this brings us back where we started since 42-05 also came from (40-34 x 39-62). The pollen parent of Chamberlain's amoena, Pink Salmon, is a Muhlestein iris whose parents were (Spindrift x Golden Eagle). The latter, still another Hall iris, is descended from some of the same ancestors as Hall's 42-05.

The Wills yellow amoena from (Salutation x At Dawning) provides another relationship through Salutation, a Hall seedling, which has ancestors in common with 42-05. This relationship is also true for Wills' 65-45 and for any crosses involving it because of Golden Eagle in its pedigree.

Still other relationships are found. Geddes Douglas in an article, AIS Bulletin 107, p. 108, indicates that Isabellina which was one of the iris in the pedigree of the Mitchell pink bicolor is a sister to Happy Days which we found in the pedigree of Wills' 65-45 and since these irises have W. R. Dykes in their pedigree they are also related to the Hall seedling 42-05. The Wills amoena involving Mitchell's Fair Elaine is related since the latter came from (Happy Days x California Gold).

At this point another check on relationships is required to determine whether the irises just examined, that obviously have genes in common, have ancestors in common with well known amoenas.

Examination of pedigrees reveal that they do have such relationships, and interestingly the ancestor they all boast is Amas.

Without question the most famous amoena is Wabash, both in its own right and as an ancestor of other amoenas. Lent A. Williamson is on both sides of its pedigree and hence Amas is there also. The Stevens iris, Pinnacle, is another famous amoena with Amas in its pedigree a number of times. Mrs. Stevens has also crossed Fair Elaine with her key amoena seedling to produce Summit and Mystic Melody thus giving more relationships with the irises under consideration as well as introducing more Amas into her own breeding program.

But there is still more evidence that Amas must be seriously considered in any attempt to discover the source of the amoena characteristic. I found, after I had compiled my own data, that my hybridizer friend, Edwin Rundlett, had arrived at the same thought after an examination of the pedigrees of a group of irises different from those that I had used. Furthermore, he had made crosses involving Amas so as to test his ideas. His immediate results were not productive and because of stronger interests in other experiments he decided to drop the matter. However, he has generously supplied me with his data and

is giving me advanced generation seedlings for use in my own experiments. More recently another irisarian friend, Emily Childs, brought O. Baker's pink amoena, registered in 1954, to my attention. And here again we have another case of an amoena from parents that are not amoenas and with Amas in its ancestry.

The amoena in my garden from (California Gold x 53 P I) cannot be regarded as an accident. It is merely, because recessive genes are involved in a tetraploid cross, a statistically unusual event. And, since Amas appears at least 106 times in the pedigree it seems logically necessary to consider its influence in any attempt to explain any of the characteristics of my seedling, including the fact that it is an amoena. But it is also obvious that many different irises were involved in the parentage of this plant, and also in the parentage of the other irises under consideration. These other ancestors have produced their effects and it would seem illogical to believe that Amas is the entire explanation for the fact of amoena genes.

Nevertheless, Amas has a prominent place in the ancestry of amoenas, and a tentative explanation of amoenas is that amoenas appear in the progeny of irises having Amas in their ancestry.

It is very likely that this explanation will need to be expanded by some qualifying statement concerning the influence of other irises in combination with Amas and there is some information that seems to bear on our problem. For example, Sir Arthur Hort, AIS Bulletin 2, p. 19, comments that when the pollen of Amas is put on Trojana the result is many plants whose flowers show breadth of contrast between standard and fall. This statement suggests that were there no such thing as an amoena it would be logical to cross trojana x Amas as a first step in an attempt to develop one. Since trojana is found in the pedigrees of some of the amoenas being examined it may have contributed the tendency toward contrast mentioned by Hort. Mrs. Stevens' monumental work and her successful use of the idea that amoenas are albino variegatas commands our admiration while at the same time forcing us to include *I. variegata* in any attempt to explain the amoena iris. The presence of irises having the variegata color pattern in the pedigrees of many amoenas has had an obvious influence on previous explanations of the development of amoenas and it seems quite likely that any future explanation will include reference to the influence of variegata parentage. Finally, there is a small amount of evidence that a W3L iris named Amoena, which was available in 1812 to 1871 and which may have been available at a later date, may be in the pedigrees of a few of our amoenas. At any rate, an amoena of some kind is in the pedigree of Jean Cayeux and therefore in the pedigrees of a few of our modern amoenas. Of course it is possible, according to Dykes, that the yellow of the variegatas can be replaced by white and that the Amoena in the pedigree of Jean Cayeux is one of the forms of variegata.

It has been brought to my attention that a majority of the Sass irises are based on Amas but with a strong representation of variegata in their ancestry. This raises the question of why, with their tens of thousands of seedlings, they have produced no amoenas if both Amas and variegatas are important contributors to amoena ancestry? It could be that there was no real Sass interest in amoenas until recently. In support of this point of view is a bit of evidence from the book, *Half Century of Iris*, p. 127. Here, there is a reference to amoena irises produced by Henry Sass and a particular reference to a yellow amoena from an unnumbered blue crossed with an inbred flamingo pink. Although no definite pedigree is given, this is an interesting result since it is quite likely that the pink will be related to the pinks in the ancestry of the other amoenas we have examined. Because this is still another example of amoenas from non-amoena ancestry it would be extremely interesting to know about its pedigree. This particular cross also supports Mrs. Stevens' discovery that yellow is dominant to blue in the falls of amoenas.

What I have found thus far indicates that there is no simple explanation for amoenas, but it also indicates that a place must be found for Amas in any comprehensive explanation of this form.

However, let us confuse the problem a little bit more by reopening a discussion with Geddes Douglas. He, in a most interesting article, *AIS Bulletin* 121, p. 9, gave us some valuable information plus some reasoned estimates concerning the ancestry of Shah Jehan. Very logically he arrived at B. Y. Morrison and the old diploid Edina as likely contributors through the Shah to the amoena tendencies of Extravaganza. But he also decided that Lord of June and Neptune were unlikely to contribute to amoena inheritance and ruled them out as possible ancestors of Shah Jehan *because* of their Amas ancestry. In a letter Mr. Douglas explained that his reason for doing this was that in crosses involving thousands of seedlings, neither Wills nor he ever got a single amoena from a blue bicolor and since Amas is a blue bicolor he ruled it out.

And this puts things up in the air. I enjoyed the Douglas article and still find much of it thoroughly convincing. Furthermore, there is no way to avoid the facts of his experience. But on the other hand I cannot turn away from what seem to be contrary facts.

What to do?

AREA CHAIRMEN

ROBERT S. CARNEY, Tenn.

The question has been asked, "Just what are the qualifications and duties of an area chairman?"

The position of area chairman is a logical development in the growth of the American Iris Society and came about in a most casual manner. Several years ago when the position of Regional Vice-president was changed from a semi-honorary position to an active working job, some RVP came up with the idea of breaking the Region down into Areas and appointing an assistant in charge of each Area. He or she, as the case might be, gave these assistants the title of area chairmen and from this simple beginning the area chairmen have become an accepted part of the Regional officialdom.

Qualifications for an area chairman are not many nor too rigid but are important if the job is to be filled properly. The candidate should be an iris lover, preferably a grower of iris; a good judge of iris although not necessarily an official judge; a willing worker; and last but not least a good mixer. It is absolutely essential that the candidate be a willing worker for like all other AIS offices there is a great deal of work connected with the job if it is to be handled properly. It is also necessary that an area chairman be a good mixer for as area chairman, he or she will be often called upon to meet with various garden clubs and talk on iris.

There is no limit as to the number of area chairmen a RVP may appoint and they are usually appointed according to the number of active iris centers there are within the Region. Each area chairman is responsible for promoting interest in iris, organizing local iris groups, securing new members, and doing all other things possible to promote the welfare of the American Iris Society within his or her Area. The area chairmen are also responsible for furnishing the RVP with pertinent information to be included in the Regional newsletter.

In Region 7 the area chairmen have the authority to appoint area membership chairmen under them to assist in the membership drive and they also have the responsibility of recommending the garden and exhibition judges for their Area. These area chairmen are familiar with the members in their Area and therefore are in a much better position usually, than the RVP, to know who are qualified to be judges.

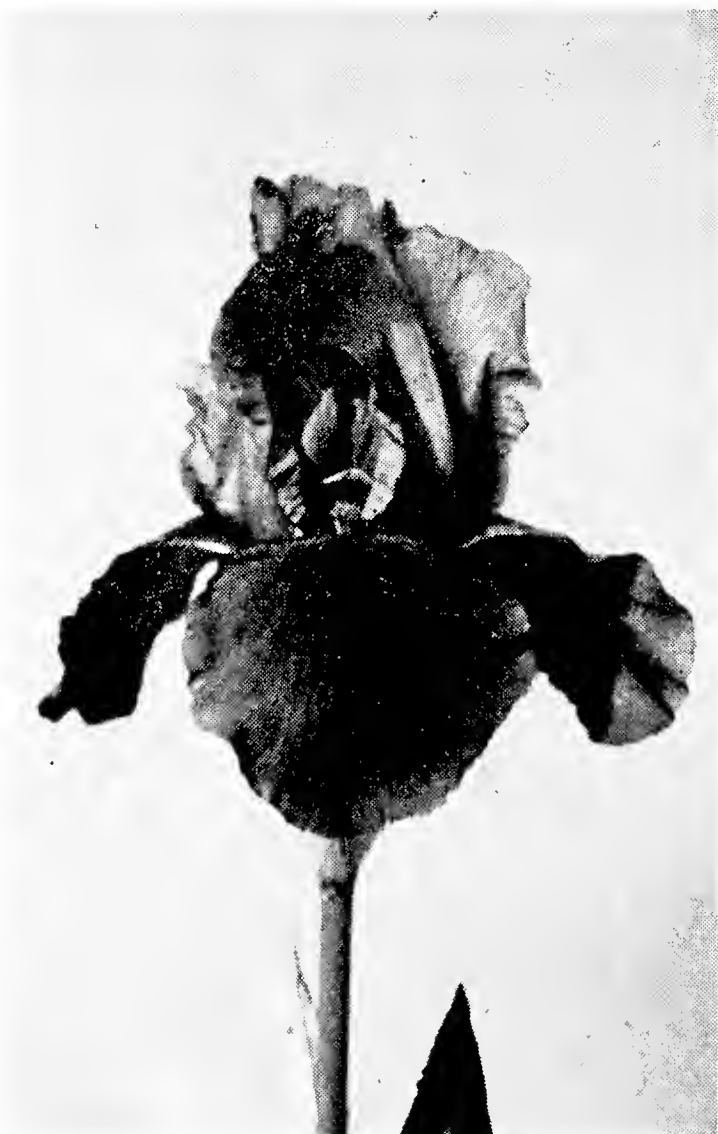
In the January Bulletin, President Walker expressed the hope that some method of choosing a RVP can be worked out to where those who are working closely with the RVP will have an opportunity to express their desire as to whom the leadership shall be passed. I would go even further and suggest that wherever possible the succeeding RVP should be chosen from among the area chairmen. Through their work with the retiring RVP they are familiar with the problems of the Regions.

1957 Slides Contest

From the announcement of the color slide contest in the April 1957 A.I.S. Bulletin, about 250 slides were received as entries. After screening through these slides, the judges selected 60 slides that would qualify for prize consideration.

The 60 slides were again carefully screened and the following 6 selected as prize winners:

ALBERT G. LAUCK,
Slides Committee
Chairman



1st PRIZE—Iris rhizomes, value \$100.00
GALILEE—Submitted by Earl R. Roberts, 2308 Roosevelt Ave., Indianapolis 27, Indiana (Upper left)

2nd PRIZE Iris rhizomes, value \$75.00
CORONATION GOLD—Submitted by Edward A. Zickler, 5445 Manker, Indianapolis 27, Indiana (Right center)

3rd PRIZE—Iris rhizomes, value \$50.00
GARDEN GLORY—Submitted by Edward A. Zickler, 5445 Manker, Indianapolis 27, Indiana (Lower left)

Winners Announced

GARDEN OF MRS. LEO REYNOLDS
—Submitted by Mrs. J. B. Keeton,
Grenada, Mississippi (Right)



GARDEN OF MRS. J. B. KEETON—
Submitted by Mrs. J. B. Keeton, Gre-
nada, Mississippi (Right)

*Black and white reproductions prepared
by Cullen Felts, Nashville, Tenn.*



THREE HONORABLE MENTION
WINNERS receive prizes of rhizomes
to the value of \$25.00 each.

STARSHINE—Submitted by Mrs. Drew
Ferguson, West Point, Georgia (Left)



From Irisnoll

Skyscape.	1958. Lovely blending of blue and pink often seen in the evening sky. Large, flaming flower. Tall stalk. Cloudcap X (Cloudcap x Frances Kent)	\$25.00
Mithra.	1958. A different yellow. Clear, clean self of Primuline (Ridgway). Large, ruffled, flaring. Extra heavy substance. Tall. New Hope X Cloudcap	20.00
Sunset Sail.	1958. The famous 547 B. Tall. Large-flowered, yellow ground plicata. Extreme width of fall.	25.00
Violet Hills.	1956. Clear Fluorite Violet self. No shading or haft marking. Wide, rounded, flaring falls. Beard violet, tipped blue. Seven-inch flowers on 48 inch stalk. Always lovely, rain or sun.	25.00
Grand Teton.	1956. Large, very ruffled wax-yellow on strong forty-inch stalk.	20.00
Irma Melrose.	1956. Flaring, graceful ruffled flower of lemon-yellow. Light plicata pattern.	17.50
Coral King.	1957. Pink self, very ruffled. Coral pink beard. Carabella X (Pink Sensation x Cloudcap.)	20.00
Whimsy.	1957. Lavender violet standards, brown midrib. Rich brown falls. Bright orange beard. From tangerine bearded pink and plicata parentage.	20.00
Fanciful.	1957. Luscious melon-pink-apricot blend of excellent form and substance.	15.00

CATALOG FREE

FRED DE FOREST

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IN MEMORIAM, H. M. McLEOD, JR.

DR. FRANK B. GALYON, Tenn.

East Tennessee has lost its most prominent Irisarian in the death of H. M. McLeod, Jr., who since 1948, had been Development Engineer in the Chemical Technology Department of the Oak Ridge National Laboratory. He had been in failing health since the 1957 Iris season, and his release from suffering came in February 1958.

H. M. always gave generously of his hybridizing ideas, his plants, and even of his rare pollen. He was a man of humility, and no doubt because of this he was less widely known than he should have been, considering the importance of his iris work. At the time of his death, he was an accredited judge of the AIS, and he was a member of the Board of Directors of the East Tennessee Iris Society.

Mr. McLeod's principal interest was in the Aril group, and he unquestionably had the finest collection of these in this part of the country. He had been hybridizing arils with Tall Bearded for many years. In 1952 he first registered two of his seedlings. One of these, a trisectional hybrid of Artemis x Gudrun, was named Ardun. This was subsequently introduced by Tell Muhlestein. The other was named Miss Martha, for his daughter. The pod parent of the latter iris was a diploid plicata seedling of Mr. McLeod's from Anndelia x True Delight. The pollen parent was Iris Korolkowi Violacea. The iris, itself, is obviously a true hybrid, for it strongly resembles the color pattern of Korolkowi. It is a charming, small arilbred which grows well even during our sporadically wet summers. An even more interesting unnamed seedling of his is from Snow Flurry x Iris Korolkowi. This seedling, R5-52-1, likewise shows many of the traits of both parents and is also assuredly a true hybrid. When stock becomes sufficient, I feel certain that both of these excellent irises will be introduced. He had many more fine things in various stages of development.

Not the least of his achievements is the fact that he succeeded in growing and blooming *Oncocyclus* and *Regeliacyclus* species and hybrids in an area where success with them is difficult.

IN MEMORIAM

Word has just been received of the death of Mr. R. L. Lyell, Lyell's Iris Gardens, Auburn, Nebraska. Mr. Lyell, AIS member and a prominent hybridizer and grower, will be remembered for his Leading Lady, H.C. in 1949; Irish Eyes and Seedling-50-39-1, both winners of H.C. in 1956; and other noteworthy iris.

CLARENCE GREENLEAF WHITE

March 19, 1869—October 22, 1957

TOM CRAIG, Calif.

Clarence White lived a very full eighty-eight years and much of the rich fullness of those years came from flowers for which he had a deep and lasting devotion. In fact, he had a wide, encompassing love of all growing things. With experience and maturity this interest focused upon flowers, and thirty-five years ago culminated in his intense devotion to iris. Essentially a creative man, he was soon absorbed in developing and improving his favorite flower. I am sure this work was one of the greatest joys of his life.

To Mr. White the most beautiful flowers on earth were the *Oncocyclus iris*. In truth, they have taken the eye of, perhaps, everyone who has had the rare good fortune to see them, for they are often shockingly spectacular not only in size and form, but in extreme contrasts of color tone and pattern. In delicate unexpected combinations of pattern and color they offer matchless nuances and subtleties. When displayed in the grandest flower shows of our atomic age, even the wild forms like *I. susiana* are spotlighted among the most elegant "Novelties" on display. Yet three hundred and eighty-five years ago this same variety was growing in the gardens of western Europe. It was sent there by the Austrian ambassador when he found it growing in the gardens of Constantinople.

To the south and east of that city for about a thousand miles lie the ranges of the various species and races of *Oncocyclus iris*. Within this range, they are found in many widely scattered areas and in some localities, in great numbers. From the very beginning their magical beauty has captured the imagination of mankind. For countless centuries these iris must have been taken from the wild and brought not only to the gardens of Constantinople, but to gardens of all the great cities of the ancient world. We know the Egyptian Pharaohs brought them from Syria and cultivated them in Egypt three thousand, five hundred years ago, and the biblical expression "Lily of the Field" most likely refers to *Oncocyclus iris*.

Of course, these flowers are native in and near the lands known as the "Cradle of Civilization." Before there existed any concept of gardening or civilization they were growing in ancient lands where they were the most spectacular flowers to be seen. They must have moved men as deeply then as they do now. It is no odd coincidence that when you look across the crests into the heart of these flowers you immediately think of Mohammedan art and architecture. Here are the same pointed archways, the same varied masses of vibrating pattern and texture, the delicacy of which is accented by bold and simple contrasts. There can be little doubt that these flowers deeply influenced the visual arts throughout this area or that they found their way into

the legendary gardens of ancient Babylon and Persia. For, among all their native flowers, there is nothing of comparable beauty. From the beginning they had everything—but a willingness to be cultivated. They have tantalized, challenged, and defeated gardeners for millennia.

Clarence White knew this history of his favorite flower when, more than twenty-five years ago, he initiated a hybridizing program to add varied and vigorous oncocyclis hybrids to our gardens. He accepted the challenge with full knowledge that he could begin no more difficult program. With unmatched determination and tenacity he kept at this work for the rest of his life with a degree of success no one has rivaled. And other than spirit and determination, what personal traits enabled Clarence White to do so much more than those before him?

White Family Moves to Redlands

Articles in this bulletin have told of his early years as a brilliant student and of his marriage to Florence Fisk in 1905. Also recorded therein is his early work in industry with his brothers and with his father, Thomas White, founder of the White Sewing Machine Company. The family also manufactured trucks, cars, and farm machinery. Clarence White, himself, managed huge farming ventures in Florida and Hawaii. But it is the period that began in 1919 that particularly concerns us. That was the year the White family established their permanent home, Whitehill, in Redlands, California. This was a fortunate event for that town, since Clarence White accepted the welfare of the town and its citizens as one of his personal concerns. His gifts ranged from a fine public building for music, drama, and dancing to thousands of rose bushes for school children to plant for the beautification of the town. He gave freely to improve the health, learning, and general welfare of his fellow townsmen. The number of his gifts cannot be counted. His time and services were in constant demand by the community to organize and direct public projects.

Few are those who bring to iris hybridizing such individual and varied qualities of mind as did Clarence White. Before growing iris he was an able executive with a naturally brilliant and eager mind—a mind sharpened by the best in formal schooling, by travel, and by self-directed study and research. He has been called “patient in his work,” but his enthusiasm was too real to allow him to be truly patient. It was more that he had become resigned to accept without complaint all the difficulties, the slow progress, and the inevitable disappointments in his work. Perhaps next season things would be better! Thus, even persistence and determination are not adequate to express the drive behind his work.

He was extremely sensitive and aware of everything around him. Refinements and subtleties that many would not notice were important to him. He avoided the obvious and strove for novelty and improvement.

He missed no imaginative suggestion that lay behind a word or phrase. Constant variation and novelty in his new flowers excited him and he had little patience with the obvious in them or in anything.

He always had much to offer and gave freely. He was obviously a man from whom much had been asked, and one accustomed to quick completion of what was to be done. Conversations with him progressed with remarkably few words, yet with very rapid exchange of ideas and feelings. There were few digressions of any kind, and he was most reserved about bringing himself into the conversation. For this reason those close to him never ceased being surprised by the wide range of his interests and activities. He had a tendency to share with each friend only that part of his life that was common to both of them. You did not quickly appreciate the range of his many fine qualities. His view of life was personal, searching, and courageous. You understood this as you grew to know him, for he was not as quick to express it in his words as in his acts and his good deeds.

With his family he shared a wide interest in all the arts and crafts. His knowledge of the history of European painting was extensive, and he was familiar with the work of contemporary painters. He was a student of the history of oriental culture, especially the arts and crafts. The breadth and extent of his knowledge of these subjects I cannot estimate, for in no instance have I heard him make any comment that indicated a limit to his information. There were elegant fabrics and drapes at Whitehill I admired for a long time; I recently learned they had been woven by Mr. White. Only when I was preparing this article did I learn that he wrote volumes of poetry solely for his own satisfaction.

Artistic Temperament Finds Expression

All his experience, knowledge, and culture found expression in his work as a hybridizer. Because he was truly creative, he was an exacting critic of his own work, and he was not easily satisfied. He could not remain happy with hybridizing advances that were closely derived from the work of others, even though his varieties were widely and justly acclaimed the finest of the kind in existence. He did appreciate all the attention his varieties received, and he created them for all to enjoy. However, for his own satisfaction the scope of his project had to be challenging, imaginative, and especially original.

In the very early twenties the gardens at Whitehill included what fine iris were then available. They were planted for garden decoration at first. This was the peak period for the diploid tall bearded iris. Years of extensive breeding throughout the world had given wonderful variety and quality to these beautiful and vigorous little iris. They were readily available; the better iris gardens were overstocked with the best of them. Tetraploid iris hybrids were just appearing on the

market, and they were still scarce and costly with very few varieties available. It was a stimulating time; full of novelties, breeding breaks, and rapid progress, and much talk of the breeding of the new giant iris. The first available plants of these triploid and tetraploid novelties went to Whitehill. Mr. White bought the first plant of that sensational *Oncocyclus* hybrid Wm. Mohr. That Clarence White would soon start hybridizing was inevitable.

However, exact dates of his early crosses and the arrival of key parents in his gardens cannot be set. By 1925 it was a very active iris garden. That was about the time William Mohr was growing there. Mauna Loa and W. R. Dykes arrived around this time or, perhaps, a little later. *Oncocyclus* species came into the garden very early, especially *I. susiana*. In general, the late twenties was the period when Mr. White imported quantities of *Oncocyclus* species and the Van Tubergen R. C. hybrids, although a few were probably brought in earlier or later.

A partial record of the 1932 plantings of iris at Whitehill tell a great deal of Mr. White's early work. The garden is already full of numbered seedlings. Lady Paramount received an H.M. that year and with Brown Betty was growing in established clumps. Seedlings bred from *Oncocyclus* were not uncommon among the selections. Dwarf species were growing there and were used to some extent in crosses with *Oncocyclus* species.

Already, memories of the great efforts and struggles that produced the wonderful series of Clarence White hybrids are beginning to fade. Therefore, detailed discussions of his work are to appear in the next Aril Society yearbook.

Nonetheless, Mr. White's iris will not soon be forgotten. They are far too original for that. Unlike the common run of iris introductions they will not be challenged by new improvements. The effort to produce many of these plants was far too great. Varieties produced twenty years ago like Oyez, Nelson of Hilly, and Some Love are still of unmatched quality. They will be cherished as long as men make gardens. But his greatest achievements are those of recent years. In thirty-five years of persistent effort he produced a series of large oncobreds that breed freely with all sorts of tetraploid Tall Bearded, *Oncocyclus*, and *Regelia* *cyclus* hybrids. There are no parents in the iris world that offer such possibilities in novel breeding lines as do these iris. They are the starting point for the new race of iris he dreamed of. Here in strong fertile hybrids are the genes of *Oncocyclus* and *Regelia* iris that for so long have been linked to frailty and locked behind the door of sterility. In them lie the hope and promise of wonderful variety and novelty, the possibilities of which are totally unexplored.

CLARENCE GREENLEAF WHITE

Introductions and Honors

1932			
Lady Paramount	H.M.	Spring Secretary	H.M.
Sweet Alibi	H.M.	Noel	H.M.
1935		1943	
Fiesta	H.M.	Nelson of Hilly	A.M.
Another Day	H.M.	Sheriffa	H.M.
Mohrson	H.M.	1945	
1936		Sheriffa	H.M.
Sweet Alibi	A.M.	1946	
Brown Betty	H.M.	Your Worship	H.C.
Somebody	H.M.	1947	
1937		Butterfly Wings	H.M.
Mohrson	A.M.	Present	H.M.
1938		Quaker Mischief	H.M.
Chosen	H.M.	Templar	H.M.
1939		Your Worship	H.M.
Chosen	A.M.	1948	
Answer	H.M.	Baltis	H.M.
California Trek	H.M.	Yarkand	H.M.
Morning Song	H.M.	1949	
Some Love	H.M.	Present	A.M.
Symbol	H.M.	1952	
1940		Kalifa Fatima	H.M.
Some Love	A.M.	1955	
Oyez	H.M.	Phoebus Apollo	H.M.
1941			
Oyez	A.M.		
Nelson of Hilly	H.M.		

IN MEMORIAM

E. L. HODSON

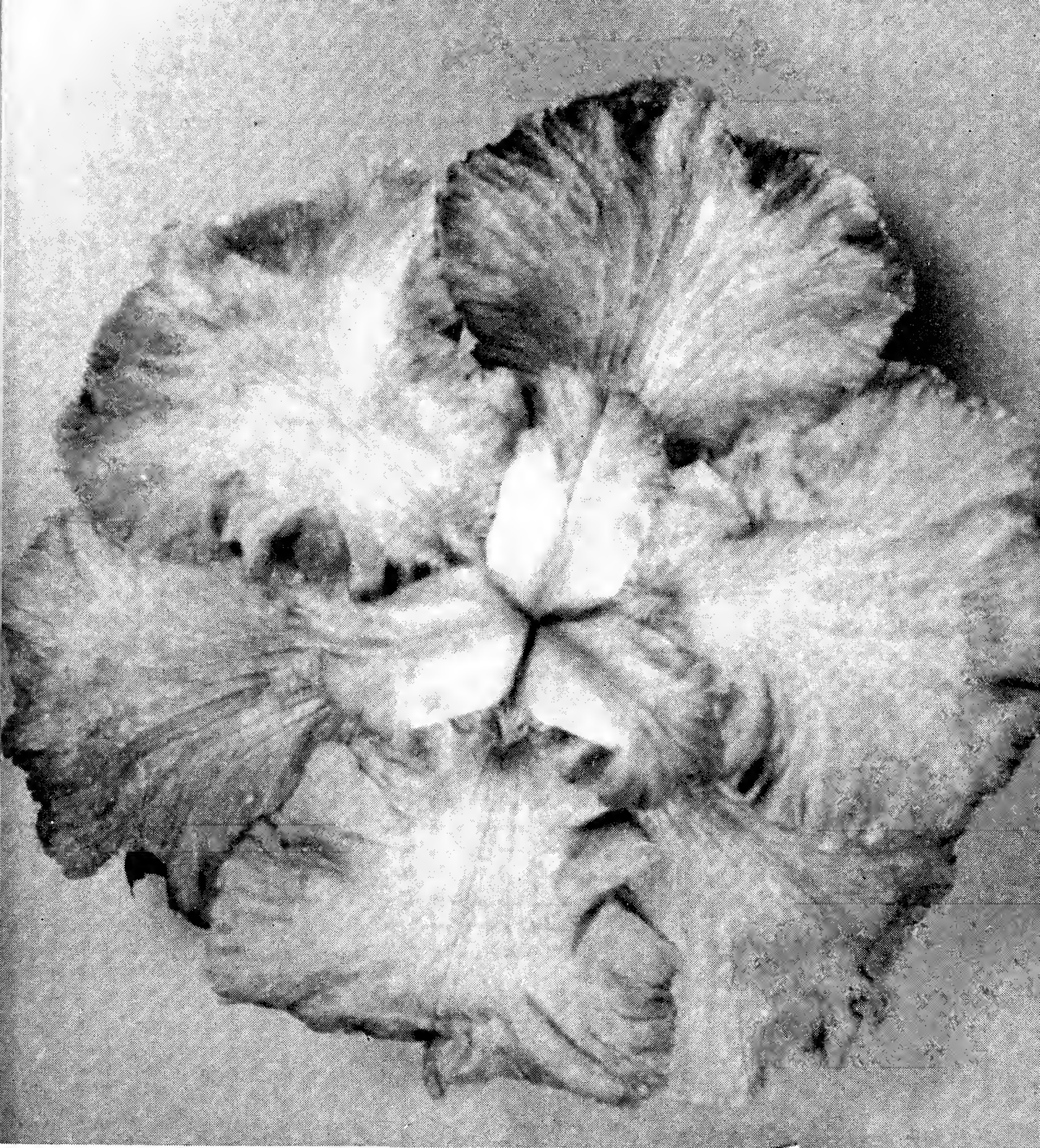
It is with regret that the AIS reports the death of one of its members, Mr. E. L. Hodson of Glen Ellyn, Ill.

Mr. Hodson is remembered especially for his work with the Dwarf Iris Society. He had won the Medal of that society and also the Caparne Award for his dwarf iris, Path of Gold.

Besides his interest in iris Mr. Hodson was a member and judge of the American Hemerocallis Society.

MRS. JOHN E. GREEN

The AIS is sorry to learn of the death of Mrs. John E. Green, Jr., (Anne S. Skinner) of Houston, Texas on October 29, 1957. Mrs. Green, at one time President of the Spuria Iris Society, and her gardens were well-known to many horticulturists and flower lovers. She was also an active member of The Garden Club of America.



GIANT CLEMATIS—As its name indicates, and as the photograph shows very clearly, this new iris resembles a giant Clematis flower more than it does an iris. It is immense in size, commonly producing flowers 9 inches across. The coloring is rich mulberry, and the beard is creamy lilac. While most iris have only three beards, this has six. Many who see this giant flat flower for the first time think it is a Japanese iris, but actually it is an Oncobred, and a most unusual one.

photo courtesy rainbow hybridizing gardens

CARL MILLIKEN

A History of His Iris

BEN HAGER, Calif.

Maybe it was that glorious sunshine that blazes through occasionally, or maybe it was just that many plants grow like weeds in California (even the weeds), but when the interest in the improvement of the iris genus through breeding and hybridizing became the vogue of the horticultural world, this interest really surged forth in California; and a group of very important men and women have left their names behind many important iris that have worked their way into the symposiums, and garnered their share of the awards of the American Iris Society.

These same iris are continually appearing in the ancestry of many of the wonderful iris that are the new stars of our present outlook. Just as well known as the iris are the names of this group of famous pioneers: William Mohr, Sidney B. Mitchell, Carl Salbach, Oliver Essig, Lena Lothrop, Clara Rees, Stafford Jory, C. G. White, and Carl Milliken. And four of these lively people are still at it!

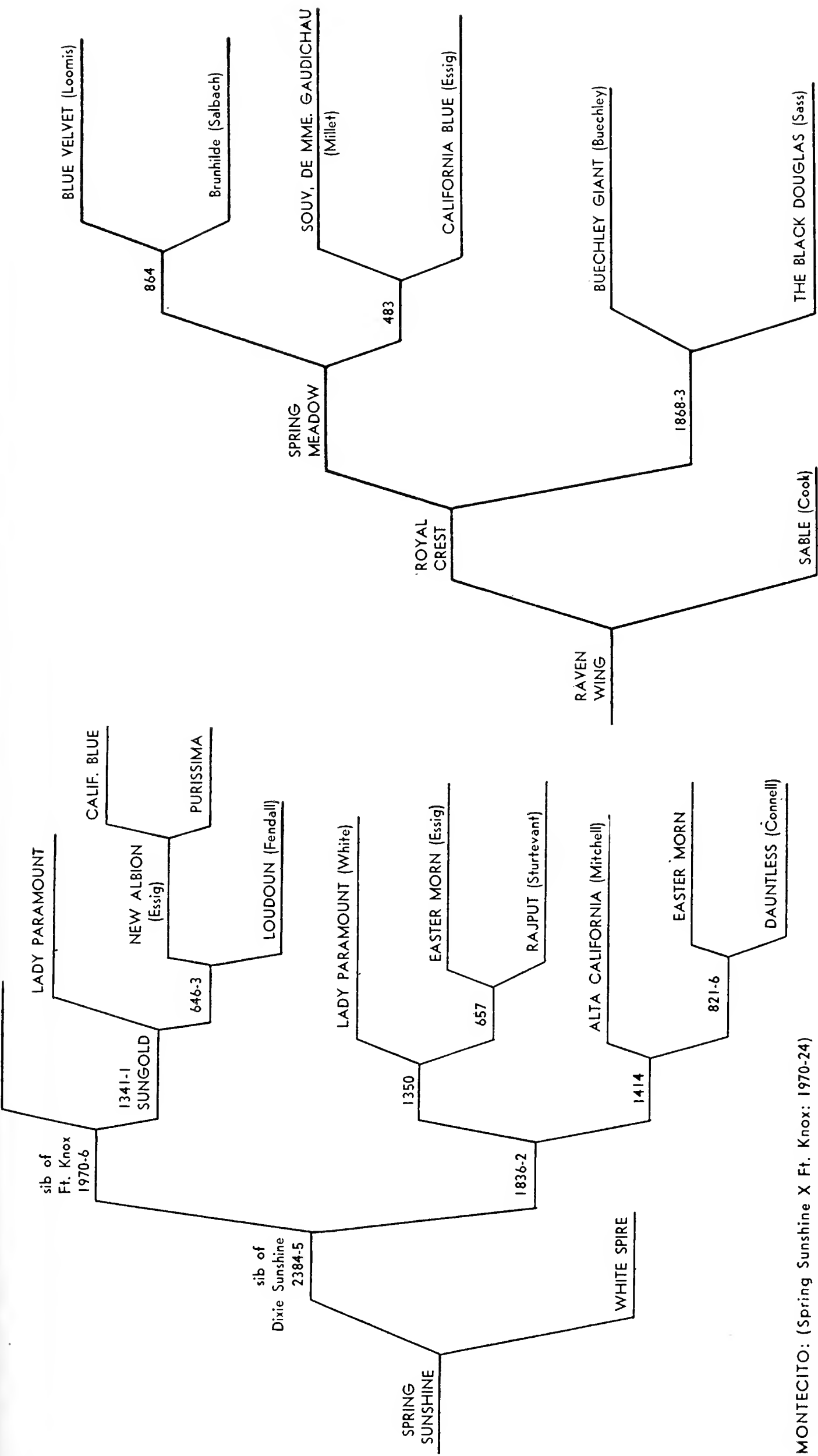
All have named and introduced some favorite iris, but the first and still most famous iris that Carl Milliken introduced was China Maid, offered to the public for the first time in 1936. China Maid won the Award of Merit in 1939 and remained on the popularity poll until 1956, a record attained by only a very few iris. Another notable item of interest about China Maid and its history in the breeding program of Mr. Milliken is that it is one of the few of his introductions derived from a cross of two named iris not his own. China Maid and its sibling, China Boy, came from the direct cross of Berry's Moana Loa by Dauntless. There are a couple of other exceptions, but the majority of the Milliken iris were the result of breeding seedlings, and in some cases the parent-ages became highly involved and reached into the sixth generation and seventeen or more years of interbreeding.

Three iris: Montecito, Tindalao, and Raven Wing, climaxed an iris hybridizing career that started with the numbered seed pod: #1—San Gabriel X ?, recorded in 1926. This was a worthy parent for Mr. Milliken to begin with since it was the most famous iris from the work of Mrs. Jeanette Dean, whose iris business, the Southern California Iris Gardens, Mr. Milliken took over that year. We have always understood that San Gabriel was pretty much sterile since it is a triploid, and I wonder what came of this pod of seed. It would be interesting to know, but this number never appeared again in the breeding lines.

The three iris mentioned above were not the last introductions from Milliken breeding, but they stand as his greatest achievements and they would be considered a satisfactory achievement to culminate the career of any breeder. Two of them, Montecito and Tindalao, are the

THE YELLOW LINE:

CHOSEN (White)



MONTECITO: (Spring Sunshine X Ft. Knox: 1970-24)
TINDALAO: (Spring Sunshine X Arcadia Buttercup)
ARCADIA BUTTERCUP: 2384-5 (see above) X2056:(Chosen)X(((Dorothy Dietx) X ((Cameliard) x (Modoc x Bruno))))

results of a most interesting line of breeding which involved named varieties of several other California breeders, and produced only one named variety, Sungold, until the fifth generation, when it gave the famous and astoundingly large, light yellow Spring Sunshine. Sister seedlings of some of the parents in this line were chosen for naming, i. e., Fort Knox and Dixie Sunshine, but none of the clones that were used in this line were named, with one exception, until Spring Sunshine (see diagram).

The pod parent of Spring Sunshine came from a batch of seedlings that were marked miscellaneous and so no parentage was known, but the pollen parent was the fourth generation breeding of the "Yellow Line." At this point Mr. Milliken crossed Spring Sunshine back to a sister of its own grandparent, Fort Knox, and was rewarded with Montecito. The pollen parent of Spring Sunshine was the pod parent of Arcadia Buttercup, and Arcadia Buttercup crossed to Spring Sunshine (doubling up on the "Yellow Line" again) gave that noble yellow iris, Tindalao. So Montecito is its own great aunt, and Tindalao is its own first cousin, and . . . I'm my own grandmother . . . I think? Confusing, isn't it? But that's the way with line breeding although the results testify for themselves. In their class, these two iris will be hard to supersede, but along with all the good points separated out through selection of the superior seedlings, the bad points are carried along too.

Milliken Iris Have Sun-loving Inheritance

Back there in the history of these iris is all that "Mediterranean blood" in the form of the original species iris *mesopotamica* (synonym for *I. cypriana**) that came from those famous parents, Easter Morn, Chosen, and New Albion. It is curious that Mr. Milliken actually used *mesopotamica* in the first couple of years of his work, but all the blood of this species came to his iris from other sources. Since these iris were grown in temperate climate there was no way to select away from this sun-loving inheritance, and there it remains. Montecito and Tindalao are no more tender than their parent Spring Sunshine and can be grown anywhere that this iris can be grown. Perhaps what may prove more important is that Montecito has shown evidence of a willingness to do well in extremely temperate conditions, which is really as important to some regions that want to grow iris as hardiness is to others. And even as Spring Sunshine and China Maid have proven their worth as parents where hardiness is sought, so should Montecito and Tindalao be worthy of consideration as parents anywhere.

To repeat, the first crosses for Montecito and Tindalao were made in 1934. These iris were introduced in 1951, so six generations and seventeen years later Mr. Milliken attained the end of the "Yellow Line." The third

* *I. cypriana*, Baker & M. Foster (*I. mesopotamica*, Dykes, A syn.) Dr. L. F. Randolph, AIS Bulletin No. 148, p. 13, Jan. 1958.

member of the triumvirate previously mentioned is Raven Wing. The pollen parent of this dusky beauty goes back five generations and the first cross was made in 1930: California Blue by that famous parent, Souv. de Mme. Gaudichau. You can see by the attending diagram that the pollen parent, Royal Crest, had little in it to cause tenderness, with the possible exception of Brunhilde, and when it was crossed to Sable eliminated this fault completely. Raven Wing is not a tender iris although it is a Milliken iris. Here we have a variation on the Sable cross to produce blacks, with new blood that proved a rich gift in the breeding of the black iris. The tall well-branched Royal Crest gave these qualities to Raven Wing and overcame the usual Sable inheritance of short stature. So again the long lines of seedlings paid off with something worthwhile, and indeed will probably go on paying off in the future breeding programs of other breeders who are working with blacks and purples.

Breeding for reds? Yes, that is there too. A line of violet seedlings going back four generations to the seedling 483-3 (California Blue X Souv. de Mme. Gaudichau, which was named Royal Salute), and involving Loomis' Blue Velvet and White's Incognito, ended up as seedling 2930-21, which was crossed with Rose Gold. The parentage of Rose Gold was China Maid by Dixie Sunshine, thus bringing in the "Yellow Line" again. These colors all mixed up, violet, yellow, and orchid pink, gave Mr. Milliken a fine start on a red line. From this cross came both Trail Blazer and Venetian Red. The latter is a smooth red-brown without a tint of blue in it and could have been the basis for an almost completely new line of red breeding. Trail Blazer also produces red when crossed to them, although it is itself a violet blend. It is regrettable that Mr. Milliken wasn't able to carry on this line, but perhaps some other ambitious "red" breeder will follow through here.

China Maid Proves Better for Others

As so often happens, China Maid proved to be more valuable to other breeders than it did to Mr. Milliken. His only outstanding iris from it was the well known Painted Desert. Other varieties that he introduced from China Maid never really had the quality of the original. An example of the theory expressed about a breeder's own iris seldom being as productive for him as for others may be noted in the cross of Grand Marshall (a sister of Painted Desert from the cross of China Maid X Chosen) by Tobacco Road. Mr. Milliken made this cross in 1946, twice. There is no evidence that any of the seedlings from this cross produced anything of value, and yet Mr. George Murray made the same cross a little later and got several fine things, including three beautiful and popular varieties: Glittering Gold, Dark Chocolate, and Desert Tan.

It is always of interest to review the progeny of a famous iris. There are fifty-six registrations in the 1949 Check List (and this does not include registrations from the 1939 edition or registrations after the 1949 List was published) that included China Maid either as a direct parent or a grandparent. Two breeders who got the most from China Maid were Mrs. C. G. Whiting (Majolica, Maple Sugar, Mexia, Tea Rose, Arabian Nights, and others), and Tom Craig. Mr. Craig once pointed out to me that Mr. Milliken was probably working for a red when he made the cross that produced China Maid and must have been surprised when he got a pink. Mr. Craig has shown its use as a red breeder. A cross of China Maid X Tiffany gave a red seedling that has been used successfully throughout his line of fine red iris. Both Aylette of Australia and Pilkington in England had success with the use of China Maid, so its reputation was international.

Spring Sunshine has come in for its share of use by other breeders, but probably the best results, other than Mr. Milliken's own, are those of Fred Crandall. Mr. Crandall introduced in 1957 four iris that have Spring Sunshine as a grandparent: Charmed Land, Golden Stairs, Swingtime, and Full Sail. Those who have seen these iris know that Mr. Crandall has some fine iris in these varieties, and Charmed Land has that blue beard that may come from Spring Sunshine. Mr. Milliken's Veiled in Mystery has this blue beard and is undoubtedly a seedling of Spring Sunshine although there is no record of its parentage.

Research into Mr. Milliken's spuria breeding ends with very little information to satisfy the curious mind. There are only fourteen crosses entered in the breeding books, and there is no reference to the first registered spuria, Mt. Whitney (1933, '39 Check List): Ochroleuca X ?. White Heron is without too much doubt a seedling of Mt. Whitney and the only cross which is entered in the breeding books that it could have come from is: Mt. Whitney X Blue Spuria, 1934. (This is supposition; there is no record of a parentage or number for White Heron.) Wadi Zem Zem was registered in 1943 and presuming that it was registered from a first-year bloom, it could conceivably have come from any of three crosses entered in 1941 and which are an enormous help(!) in revealing the background of this super spuria.

The entries all concern a, quote: "Large lemon yellow," unquote, X (get this) 1—Krinkled (that's all, just Krinkled???), 2—Monnieri, and 3— (this finishes it)?. Much as we all would like to know what the predecessors of Wadi Zem Zem are, I really don't think we ever will. We do know that it is probably the greatest of all the spurias to date. It won the first Eric Nies Award in 1956 and has proven itself as a parent in many seedling beds. The varieties which have already reached the market are: Marion Walker's Morningtide, Tom Craig's Investment and Sunnyside, and Frances Combs' Golden Lady. The latter spuria is one that now appears to be the first real competition for Wadi Zem Zem. There will be many more children to follow this great iris, depend on that.

Milliken's Greatest Gift to Iris World?

Neither Mt. Whitney nor White Heron have yet had the opportunity to prove themselves as parents. It is logical that they both will be of great benefit in developing better spurias, possibly in the blue and lavender class where virus is such a concern. These iris, with their predominant *I. ochroleuca* blood, have that virus resistance which is necessary to create better iris in these colors. White Heron has been the runner-up for the Eric Neis Award for the first two years of that Award's existence: 1956, third place; 1957, second place, and no doubt will get it soon. Carl Milliken's contribution of these three spurias may be his greatest gift to the iris world.

Then too, going back to the bearded iris, there are those of us who keep wondering if these iris which inherited so much from the "Mediterranean" iris, with their year-round growing features, may not be the iris which will form the basis for a whole new race of iris that will, after more interbreeding, back-crosses, and selection for those characteristics not heretofore sought out, push the southern boundaries of iris growing to . . . who knows where?

The success story of a breeder is not altogether told in his breeding books or in the introduction pages of the catalogs. It is possible that these might be secondary to the enjoyment that these iris have given in gardens of the West Coast, clear across the southern and lower middle-western states, and even up into the colder regions where gardeners have appreciated some of these varieties from Carl Milliken enough to baby them a little and nurse them into bloom each year. There are varieties that I have not mentioned so far in this article that are highlights of many spring gardens across the nation, and in gardens across the oceans, and these names will be familiar to most of you: Tournament Queen, the crisp orchid and fuschia bitone; Dixie Belle, all ruffles in warm white; Buckthorn Brown, another child of China Maid in smooth light brown; Adornment, violet with a bright blue beard; and Miss Pink, the last Milliken introduction, a seedling of Pink Cameo and notable for the depth of its color.

The end is not yet, or ever will be, for the iris of Carl Milliken will have progenies of future importance even after the years have become weary of seeing so many of these particular varieties each spring. We wish that Mr. Milliken was still active in his work with iris, but the years get weary of men, too, with no consideration of their talents for making this a happier world.

Author's Note: I would like to express my thanks to M. Oliver of Milliken Gardens and M. Oliver Flower Farms for the loan of the breeding books of Carl Milliken for use in this article. Ben R. Hager.

1958 Introductions

FROM GORDON W. PLOUGH

- APPIAN WAY—EM. 45 in. (Snow Flurry X Capitola). Falls are light violet with color deepening to purple around yellow beard. Full Mohr type flower\$15.00
- BLAKSTOK—EML. 33 in ((Amigo x Sdlg.) X Red Torch). Neglecta of nicely rounded form. Bloom stalks are dark colored giving this a unique and distinctive air\$15.00
- CHINA GATE—EM. 40 in. (Gay Paree X Palomino). Orange-buff falls. Stds. are white with edges brushed pale yellow and center flushed pink. Heavy tangerine beard\$20.00
- FLAME KISS—EM. 40 in. (Gay Paree x Palomino). White stds. with yellow base. Falls are yellow. Beard is bright tangerine. Colors are clear and sharp\$20.00
- GRAND COULEE—ML. 34 in. (Futuramic X Mary Randall). Large heavily ruffled flower. Stds. are blend of tan and rose. Falls are same blended yellow. Bright yellow beard\$25.00 net
- HINDU WAND—EML. 32 in. (((Tobacco Road x Casa Morena) x Futuramic) X Innes' Sdlg. (Ruth x Rainbow Room)). Beautifully ruffled semi-flaring blend of buff, straw, and chartreuse with solid dark brown hafts. Bright orange beard. H. C. 1957\$25.00 net
- HUDSON BAY—ML. 30 in. ((Quest x Cliffdell) X ((Cascade Splendor x Honey-flow) x Twenty Grand)). Rosy brown stds. Falls are Rhodamine Purple with hafts and borders same as stds. Form is flaring and heavily ruffled\$20.00
- INCANDESCENT—EM. 26 in. (Inca Chief X Asoka of Nepal). Stds. are straw yellow. Falls are brownish yellow with diffused molasses red signal \$15.00
- PALEFACE—M. 34 in. ((Gold Ruffles x Cherie) X Twenty Grand). Stds. are light greenish yellow. The wide ivory-white falls have a light yellow edging, and a decided bulged look\$20.00
- PEACH PLUME—M. 30 in. (Frances Kent X Palomino). Beautiful flaring blend of pink, peach, and yellow. Beard is Saturn red\$20.00

Tall Bearded Irises in the Perennial Border

W. F. SCOTT, JR., Mo.

Page 82 of the January Bulletin carries the following words: "the Tall Bearded iris has practically passed out of the picture as a fit subject to be used in landscape design. The reasons for this are most evident: susceptibility to foliage diseases rendering the plant unsightly for a large part of the growing season, susceptibility of the modern Tall Bearded iris to fungus and bacterial diseases when planted in with other perennials, and the relatively short season of bloom."

It is evident that the Tall Bearded iris needs someone to stand up for it these days.

I have grown irises of many kinds for nearly twenty years, and always as a part of landscape design and in the mixed perennial border. I have travelled from Boston to Los Angeles and from Chicago to Dallas, looking at Tall Bearded irises. I have talked with, corresponded with, and just looked with gardeners from every part of the United States and then some. Never has any one of them accused the Tall Bearded iris of being unfit for use in the garden because of susceptibility to disease.

Quite the contrary. When it is considered how many diseases affect our other much-loved perennials the Tall Bearded iris appears relatively immune. Roses catch everything that comes along, and a good rose garden demands constant attention and expense. Columbines are subject to crown rot which kills off many each year. Phlox is subject to mildew. Peonies suffer greatly from botrytis. You name the flower, and the disease comes to mind.

A generation ago the borer threatened to wipe out iris plantings all over the country. There were people who said they had to give up growing irises because of the borer. Where is the borer today? Practically gone. A little attention with DDT when the borer eggs are hatching in the spring takes care of any in a hurry. A few more years and the borer will be seen only in photographs.

Soft rot we have had with us always, and probably will. Also the felt-like winter rot. The causative agents are too plentiful to be eradicated. The winter rot rarely is widespread, usually it kills a few scattered rhizomes. The smelly soft rot occurs when heat and moisture cause the bacteria to grow rapidly. There are simple and effective cures. Every iris grower knows them. In most instances the simple letting-in of sunshine, by cutting back the foliage, will do the trick.

Bacterial leaf spot is unsightly but easily controlled with spray. It rarely damages a plant. It just makes them unsightly during a heavy infestation, which can come with hot and humid weather.

What else is there?

We seem to have two new diseases. That is fashionable. We couldn't just rock along with our old favorites.

Our new ones are virus and scorch.

What is virus? Humans have them too. One authority (p. 73 Bull. 148) says viruses came into our modern iris hybrids through the onco-cyclis blood. Most plants suffer virus diseases. Lilies have them. Tulips have them. Lots of others, too. If viruses have come into our modern irises, that is not good. But it is not fatal, either. The other virus-affected plants have managed to get along all right, and so can the irises.

What is "scorch"? The scientific people say they do not know. There is the thought that it may be caused by nematodes. If that is true, we have a cure right handy, for the farmers have had nematodes to battle with for years, and there are several good nematocides on the market. In some parts of the country the incidence of "scorch" has been severe. Judge Rogers had a terrible outbreak of it a few years back. However, country-wide it has caused no great suffering, and in most gardens an incidence of 2% to 5% is about as bad as it gets.

In our own gardens, the irises have always been planted in mixed perennial borders. If Tall Bearded irises planted that way are "susceptible to fungus and bacterial diseases" we'd surely have found it out by now. But no. What has been our experience? The Tall Bearded irises grow year after year with only normal garden attention. They bloom year after year to the glorification of our garden. Clumps must be dug, divided, and reset every five years, or the size of stalks and blossoms diminishes. We have a borer only rarely. We have the felt-like winter rot less than 1%.

We have the soft smelly rot less than 2%. We have very little bacterial leaf spot. Virus? Gee, we don't know what it is. If we've had it we do not recognize it. Scorch attacks perhaps five plants out of more than three hundred, on an average, each year. If it is detected early, the clump can be cut apart (but not otherwise disturbed) and we'll lose only one part of the clump. Sometimes only one or two rhizomes.

We have no particular trouble with Tall Bearded irises.

Consider the trouble with other perennials. Consider roses! You name it and the rose has it. Consider peonies. If ever a plant was subject to fungus diseases, this is it. Ever watch your nice fat buds blacken and turn into hard marbles just when you want them to bloom? Botrytis.

Make a list of your perennials and opposite each name jot down the illnesses it is normally subject to, and the things you have to do to keep it growing.

Oh, yes, how about that "relatively short season of bloom"?

Make a list again, and opposite each perennial write down the date it begins to bloom and the date it stops. Not the straggling occasional blossom out of season, but the normal time when the plant is a decoration to your garden. The only perennial which has a really long season of

bloom is the rose. If it were not for that very few people would grow roses. Look at the price they must pay in time, trouble, and money to keep them in good condition.

The modern Tall Bearded iris is a wonderful plant. It does well in the mixed border, and it is an excellent subject to use in landscape design. I do not have to accept the evidence of my own experience and observation to say that. Professional landscape gardeners far and wide will confirm it. The modern Tall Bearded iris has a season of bloom which compares favorably with that of most of our garden favorites. It will grow and bloom for years with much less care and attention than most perennials demand. It gives the gardener more color and more satisfaction per square foot of flower bed than any other flower.

And—most important to us—the Tall Bearded iris is the favorite plant of the great majority of the members of AIS, and they find it a wonderful plant to grow.

And from Jeannette Nelson (Mrs. Ralph S.)

- CAUTION LIGHT**—ML. 40 in. (Truly Yours X Dolly Varden). Very large Buttercup yellow with well domed stds. and flaring, smooth lace edged falls set off by a heavy orange beard. A lovely flower of excellent substance and branching \$20.00
- DUKE OF BURGUNDY**—EML. 48 in. (Gene Wild X Black Hills). Huge smooth, dark burgundy with a nine inch spread. Std. are well domed and falls are wide and flaring with wide brown beard. Hardy, fertile, and floriferous. H. C. 1957 \$25.00
- MAGNET**—M. 32 in. (Apricot Glory X Palomino). Brilliantly colored new beauty. Vivid apricot stds. and falls same with buttercup yellow on the sides. Wide fiery red beard. Strong grower \$20.00
- SOARING KITE**—ML. 42 in. (Party Dress X Snosheen). A tall, light, and airy beauty of cool ivory and pale primrose. Form is flaring and very ruffled. Substance and branching are fine and it performs and increases well \$20.00

Five of these are presented in color in the 1958 Free Color Catalog. This is sent to all A.I.S. members in the U. S. If you didn't get one and are interested in ordering some of our fine large rhizomes, write to:

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Green Tall Bearded and Pink Intermediates

CLARENCE D. JONAS, Ind.

In the beginning one of my major goals in breeding was to produce a green tall bearded iris. I corresponded with most of the best known iris breeders all over the world about ten years ago regarding their experiences with green iris breeding, and how they hoped to produce a green tall bearded iris.

I read in the American Iris Bulletin #2 where Caparne had a *PEACOCK GREEN SEEDLING*, so I was not too surprised when the green dwarfs showed up in both the Cook and Welch gardens in 1948.

In 1948 I used pollen of these green dwarfs on tall bearded iris—all colors. The green dwarfs crossed with "Green Pastures" gave some greenish seedlings, but the form and shape of the flower left much to be desired. Further crossing of these seedlings to tall gave no greens.

The loss of green color in crossing to tall aroused my curiosity as to pigments. Having majored in chemistry in college, especially Organic and Physiological, I remembered how to proceed to test for various pigments.

In 1950 I tested with the same procedures used by Wheldale (1929) and Scott Moncrief (1936). Incidentally, similar procedures were used by Werkmeister a short time ago and in the past year by Westphal (See Dwarf Iris Portfolio 1957).

The tests I made indicated that green in iris is not a color, but a combination of pigments including some colloid substance which is not stable in out crossing. In other words, crossing green lilliputs or dwarfs with tall (which do not contain this colloid substance and the same pigment complements) would result in a loss of the green, and this green could not be recovered in further crosses with tall.

My experience in crossing lilliputs and intermediates involving pumila back to tall, indicated that the pumila color factors were lost after the second back cross; however, the size factor of pumila is not entirely deleted.

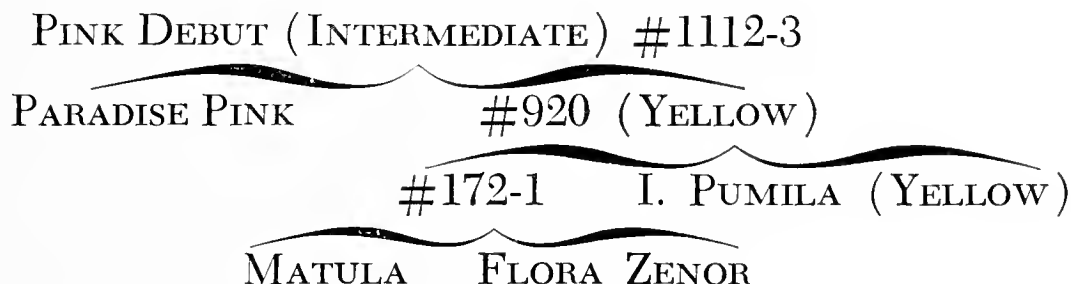
Green color in tall bearded iris may still come from dwarf and intermediate hybrids crossed onto tall; however, it is my personal opinion that this will happen only after considerable mixing of tall and dwarf factors, to produce tall with the green color complements.

As it now stands we are a long, long way from having a tall bearded green iris of the same coloring as now is found in dwarfs and intermediates if we continue to line breed the "greenest" tall we now have to work with. Personally, I have raised thousands of seedlings from tall "green" crosses and so far have developed only one, namely "Olivette," which is a decided advance in green coloring in the tall.

My dreams of pink intermediate iris started ten years ago when I first observed two progenies of dwarf seedlings in Paul Cook's garden, from crosses of a tall blue by pumila. The same day, I used pollen from these seedlings on tall pinks. When the resulting seedlings bloomed in 1950, there were no pinks.

Also in 1948, I used Austrian yellow pumila pollen on a tall bearded rose-purple iris. The seedlings from this cross bloomed in 1950, and were all yellows. "Paradise Pink" pollen (sent from the south) used on these yellows gave me *PINK INTERMEDIATES*.

The family tree of "PINK DEBUT" (to be introduced by Longfield Iris Farm 1958) follows:



In the cross #1112 there were two pods and 50 seeds. 40 seedlings germinated in 1954; however, 8 of these died during the freeze in 1955. In 1956, ten seedlings bloomed on 2 year clumps, despite another late freeze. There were 5 yellows, 3 pinks with tangerine beards, and 2 purples with tangerine beards. The beard on one of the purples was the reddest I have ever seen on any iris.

One of the pinks in this progeny #1112-1 had the best pink color, small flowers on slender stems and bloomed later than "Pink Debut." I was so thrilled with #1112-1, I could not believe it was true, so I sent a plant of it to Mary Williamson under number and no description. Last year when I visited her garden she took me to her display bed and said #1112-1 was a pink Table Iris—just what everyone has been hoping for. I have registered #1112-1 as Pink Elf and if it performs well again this year, it will be introduced in 1959.

Needless to say there are breeding opportunities unlimited through crossing these pink intermediates and pink Table Iris with both tall and dwarfs. We now have breeding material to produce early pink dwarfs and all sorts of raspberry, apricot, and blend colors in the miniature tall, intermediate, and dwarf classes.

Crossing these intermediates to tall should be easy; however, some difficulty will be encountered in back crossing to dwarf.

In 1956 I used yellow Pumila pollen on 20 flowers of the pink intermediates. I harvested 2 pods with 7 seeds. Of these, 3 seedlings germinated and will bloom this year (I hope). Out of 10 flowers sibbed, I got one pod with 17 seeds. Only 2 of these germinated in 1956, and one of these died. In 1957, I had no takes with Pumila yellow, but gathered 6 pods and 80 seeds from "Pink Debut" crossed with lilliputs, having a pink parent.

Both “Pink Debut” and “Pink Elf” can be seen at the Paul Cook Gardens. I am indebted to Paul Cook for his help and generosity in my work of hybridizing from the beginning. Without his encouragement and counsel, the above iris would not have been produced.

1958 Introductions

PASTEL SUPREME (Becherer) Pastel blend. (Marquita X Pink Formal) 36 inches. M.L. This iris was awarded the blue ribbon at the St. Louis Iris Show. It has perfect four-way branching and placement of blooms. Good increaser and parent plant. Takes all kinds of weather. Color is a mixture of yellow and pink hard to describe. \$20.00

GRAND PRIZE (Becherer) (Minnie Colquit X Seedling 02 X Like Magic) 36 inches M. This is a lovely blue and white plicata, very much admired by all visitors. Very good substance and takes all kinds of weather. \$10.00

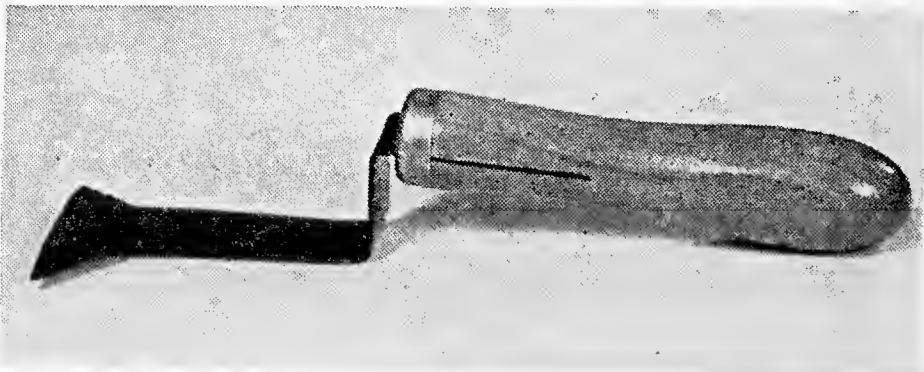
SPECIAL DISCOUNT (Becherer) 38 inches. M. (Lady of Shalot X Rose Top) This is a very fine brown plicata, spotted and striped brown. Pink and white large blooms on tall, well branched stalks. This is a very good pollen plant and fine increaser. \$10.00

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Table Iris Breeding Program

ALICE WHITE

Director of Table Iris Robins

The number of Miniature Talls (Table Iris), true to the standards of excellence set up for the class, is very limited. Also the color range is limited. Including recent registrations not yet completely evaluated in test gardens, there are but thirty or so named varieties. Of these the West Coast Test Garden, conducted by Ben Hager and Sid Du Bose, lists 22. They include 5 variegatas; 3 that may be called pastel variegatas; 5 yellows; 3 blues, 2 light and one dark; 1 each lavender and orchid pink; 1 each white and cream; 2 plicatas. So it is easy to see that new Miniature Talls, and especially more colors, are being demanded. And it is proposed to get them by breeding.

But can they be bred?

Mary Tharp opines, "From the many things I have read concerning Table Iris, you don't breed for them, they just happen." And Mary Williamson does say the original Table Iris were not planned for but just happened, a by-product of tall bearded breeding. But happenstance hasn't produced any great number of Table Iris.

So members of the Table Iris robins—and others—who would like to see the class expanded and improved, have given much thought to accomplishing this through what they call a "Table Iris Breeding Program." But where and how would one begin? A number of approaches have been suggested.

At this point the following combined quote from Walter Welch and Paul Cook is apropos. Mr. Welch says, "As to the known background of the Table Iris, I can quote Paul Cook, who seems to be the only person who has any knowledge regarding their discovery and breeding, as he was associated with Williamson when they were first born. He gave me this statement.

"I am sure the Table Irises have all come about as segregates of small size genes out of diploids containing variegata. Bruce Williamson kept few records of his crosses, none of those that yielded Table Irises, I believe. He liked variegata coloring, and used variegata varieties a great deal. When I came to know Bruce in 1920, he was still making full use of diploid talls, though he had already obtained L. A. Williamson and had begun to use the tetraploid hybrids of Sir Michael Foster and Miss Sturtevant. He crossed indiscriminantly and promiscuously, sowing seeds by the thousand.

"The Table Irises were sorted out of the large plantings of seedlings in the early twenties, most of them by Mrs. Hires and Mrs. Peckham, if I remember correctly, though Daystar was saved by Harry Dietz . . . and myself. I am satisfied in my own mind that these small diploids are simply talls that carry a high proportion of small-size genes out of

variegata. Variegata itself is only about 15" tall.

"I have written and talked with Mary Williamson about Tables, and searched through other sources for information about them, but the above is the sum total of present knowledge concerning the origin of Table Iris. It is very little, and *some one should self and intercross the Tables to learn more about them.*"

Then perhaps the most logical place to begin a breeding program is by intercrossing existing Table Iris. This approach was used by Mary Williamson, herself, some years back, soon after the first Williamson Table Iris appeared. She has reported getting 100% small things "true to size." Most were drab and uninteresting, or, at best, replicas of the originals. But two of a total of some 200 seedlings were distinctive and were selected for registration and introduction, Widget and Nambe.

Selfings Should Be Made in Quantity

Mary Williamson had but a very limited number to work with even with the addition of a few from other sources than the Longfield selections—such as Tom Tit (Bliss), which gave Widget. Today, though Table Iris number less than two dozen varieties properly evaluated in test gardens, these are far more than the, perhaps, half dozen Miss Williamson had to work with. As suggested in a quote from Irene Van de Water in "Flight Lines," p. 43 of the January, 1958 Bulletin, selfings and intercrossings among them should be made in quantity, for the more the progeny, the greater the chance of a few world beaters such as Widget and Nambe.

A second approach would be to go back to intercrossing the old diploids that were being used by Mr. Williamson when certain "runts" in the tall bearded seedling rows were recognized as worthies for a new class and attained fame as the first Table Iris. Mary Williamson says her father was using such things as Vesper Gold, Shekinah, Miranda, Arethusa, Juniata. This approach has its ardent advocates who have gone in for collecting "oldies" as breeding stock.

Some of the "oldies" that have turned up have proved "fits" for the Table Iris class, and have been added to a forthcoming check list of Table Iris varieties. These are: Gajus (G. & K. 1906), Kaleidoscope (Katkamier 1929), Mrs. Neubronner (Reuthe before 1898), Sherwin-Wright (Kohankie 1915), Tid Bit (Sturtevant 1925), Zingara (Williamson 1928). But the first of the "oldies" to be recognized as fitting the class was Tom Tit (Bliss 1919). This apparently was done by Mary Williamson, herself, and she used it in her own experimental crosses of Table Irises out of which she got Widget (Tom Tit x ?), and Nambe, parentage unknown save its being from Table Iris crossing.

But to get back to breeding Table Iris from old diploids, the Check list is short on parentage, in the case of Table Iris. But Bunting is given as Miranda x . . . ; Warbler as Titmouse x

(Mary Williamson has listed Titmouse as a Table Iris, but it goes

away out of bounds in the West). Angelita and Smarty Pants were sister seedlings from Dawn x Sans Souci, evidently a true cross for the former favors Dawn in color, while the latter favors Sans Souci in being a definite variegata. Tom Tit is the only other with both pod and pollen parent given—Jean Sisley x Loppio. So here are more “oldies,” if they are to be found, to stock up on to carry on the old diploid breeding for new Table Iris.

But of this approach, though it shouldn't be wholly disdained, Edwin Rundlett says, “Breeding the old diploids together is very costly of garden space, the yield of Table Iris being such a small percentage.” What he does favor is the use of the species *I. variegata*. He too, thinks that the existing Table Iris are heavily dosed with *I. variegata* “blood.” He says that by using *I. variegata* pollen on Table Iris you can create many new ones in a hurry, and reports having about 50 such seedlings using as pod parents Siskin, Tom Tit, and Kinglet. He adds, however, that they are very similar to existing varieties, that heavy veining on the falls is quite common, and that there is excessive haft veining. But remember Widget and Nambe.

Jean Witt, digging into old AIS Bulletins for leads on Table Iris breeding, uncovered this: that Hans Sass in 1944 recommended the use of the dwarf-statured Pixie as being good for breeding Table Iris. And she quotes him as saying further, “. . . but the best source for breeding these is *I. aphylla*.” And Pixie has been considered for Table Iris class inclusion. However, it would seem, since the creation of the new SDB class, it would be more likely to fall there, rather than with the Table Iris.

Edwin Rundlett does not go along with the “use of *I. aphylla*” theory. And it is to be noted that in the species groups under the various classes of Eupogon Irises, Randolph and Lawrence *have* placed *I. aphylla* under Standard Dwarfs rather than under Miniature Talls. So it looks as if these authorities would not consider that *I. aphylla* had played a part in the background of the older Table Iris, nor expect it to do so in the creation of new ones.

But look at the array of species that *are* given under Miniature Talls: *I. cengialti*, *I. perrieri*, *I. regenae*, *I. rudyskyi*, and *I. variegata*. Read again what is said about them under “The Miniature Talls or Table Iris,” p. 15 of the January 1958 and on p. 19 of the January 1957 Bulletins. Except for *I. variegata* and possibly some form of *I. cengialti*, these species are not readily available, but when they are, what a windfall to add to one's Table Iris breeding stock!

Ben Hager has long been harping on *I. cengialti* and its probable involvement in the background of some of the MTB. So now he is being vindicated. Another thing, Ben has come up with the term “minimizer” which applies to an iris, usually an MTB, that seems very definitely to carry the genes for smallness. These would be used both as pod and as pollen parents to bring down the colors, flower form, etc., from TB. With examples in progeny to back up his theory, he lists tentatively as

“minimizers”: Tom Tit, Nambe, Kinglet, *I. variegata*, *I. cengialti*, Dawn, and possibly Sans Souci. To this list Hazel Grapes would add Bootblack and Tipo Red. The last is Aphrodite x Frieda Mohr, she says, and she has always felt that Aphrodite would be useful in getting small things.

In the home garden, while at Fallbrook, California, a yellow seedling of MTB size came from (Wabash) X (Sandia x Sir Michael). Which is the minimizer in this case? The parentage of neither Sandia nor Sir Michael is known. Wabash is from Dorothy Dietz x Cantabile. Cantabile is L. A. Williamson with no pollen parent given. L. A. Williamson is Amas x . . . ; while Dorothy Dietz is Wyoming x L. A. Williamson. Parentage of Wyoming is unknown. It is significant that this MTB yellow has so much of Williamson iris in its makeup. Significant enough that Wabash is being used again in hopes small things will come of it, and so rate it a place on a “minimizer” list.

New Table Iris Registrations

The newest registrations of Table Iris are Eversweet (Kavan for Henry Sass 1956) no parentage; Limber Lassie (Rundlett 1957), ((Two for Tea) x (Two for Tea x Williamson 2062)); Little Helen (Rundlett 1955), (Two for Tea x Williamson 2062); Minette (Beardsley 1956) 18", (Pluie d'Or x Monarda); Parakeet (Roberts 1957); Strawberry Ice (Kent 1956) 18-24" (Crystal Beauty x Tiffany sdlg.) x (Tiffany x Crystal Beauty sdlg.). This last is described as white-splashed red and comes from South Africa. It is a guest in Edwin Rundlett's garden, but he still has to see its first bloom. Table Talk (Graham 1955) is Aphrodite x John Ohl sdlg. plicata #50. Two Bits is a pink one by Margaret Y. Albright of Salt Lake City.

Eversweet has bloomed in the home garden here in Hemet, California and is a “fit.” Plants of Little Helen and Limber Lassie have not yet been evaluated for California conditions but are reliably reported as fitting the class on the Atlantic coast. Pluie d'Or has been tapped more than once as a possible “minimizer” and may be the parent to have given Minette its smallness.

But in a Table Iris breeding program there are other problems besides lining up breeding stock. There are (1) the fact of there being often very few seeds to the pod from what seem the most favorable crosses, and (2) difficulty of germinating. In the writer's experience the highest number of seeds per pod from intercrossing Table Irises in 1956 was 19, the average being but 4 or 5, and some with but 1 or 2 per pod. No germination to date, but from former experience they may come yet.

In regard to the first problem, someone has suggested that the piling on of pollen often hampers rather than helps obtain a good “take.” So we may try spreading it thinner while at the same time making it go farther. As for the second problem some of the growth stimulants have been suggested as possibly helpful. No doubt embryo culture would be the ideal solution. But few have the skill and equipment for this.

This write-up may well wind up with the names of a few more small iris—"Table Iris in hiding" they might be called. Some efforts have been made to bring them out but with little or no success. In the "Our Members Write" section of the January 1956 Bulletin, Mary Tharp wrote, ". . . my own table iris, Sylvia (Old Gold x Shekinah) was named and registered purely for my own pleasure. For many years I enjoyed it undisturbed, but the last few years I can hardly keep enough for a small clump." Seems everyone who sees it wants it, and Mary is generous. Then there is Gamine (Cyrus the Great's sdlg.) registered by Mrs. Peckham's son in 1943. Mrs. Peckham says, "A Table Iris," and she should know. Also the late Robert Sturtevant nominated three for the class some years back. These are John Foster (Foster 1913), *I. cypriana* x ; Neos (Sturtevant 1935) Apricot x ; and Yellow Tom Tit (Sturtevant 1930).

It is hoped that Sylvia has by now found its way into one or more test gardens and, when enough is on hand, will be in commerce. Also that John Foster is not "lost" and that it, Neos, and Gamine will show up to gladden the eyes of the Table Iris enthusiasts. Yellow Tom Tit has been recovered.

The foregoing is not offered as a final word on possibilities for Table Iris breeding. It is a review of what has been going on in thinking in and out of robins in this connection.

* * * * *

KINGSWOOD CENTER INVITES CONVENTION TRAVELERS

Mr. Raymond C. Allen, Director of the Kingswood Center extends a special invitation to the members of The American Iris Society to visit Kingswood when they may be enroute to the Annual Meeting. With the co-operation of the Central Ohio Iris Society, the Kingswood Center Iris display has been increased to more than 400 varieties totalling some 4000 plants. The collection contains many of the newer varieties and some guest iris planted in preparation for the Regional Meeting to be held at Kingswood in 1959. Kingswood Center is located on Route 30 S on the western edge of the city of Mansfield, Ohio.



Mr. and Mrs. Albert G. Lauck, of Toledo, Ohio, and their son, Dr. Albert J. Lauck, of St. Louis, Mo., admire a seedling in the garden of Mr and Mrs. Leo Reynolds, at the Memphis convention.

Gardens Open to Visitors in the Empire State

Recent issues of the Bulletin have contained descriptions of some New York State iris gardens that are noteworthy but that will not be tour gardens during the annual meeting in Syracuse.

In October, Bee Emery wrote about gardens in and near Elmira, ninety miles southwest of Syracuse; Veronica Quist described two gardens in the "Tri-County" area, immediately north of New York City; and a third article named gardens in the area described in Empire State Iris Society circles as the Southwest Gateway.

In January, ESIS vice-president Dr. Irwin A. Conroe called attention to outstanding gardens in the mid-Hudson and Capital sections, and Peggy Edwards mentioned some of the gardens on Long Island that feature irises.

Since undoubtedly many AIS members will drive to Syracuse, and some may follow routes traversing other parts of the Empire State, a few more garden-visiting opportunities are noted here.

In Binghamton, 75 miles south of Syracuse, at 28 Griswold Street, is Leonard Partch's two-acre garden, which has 500 tall bearded varieties, among which are Canadaway, Marsha Kay, Humming Bird, Ivory Work, Bright Hour, Jack Frost, Sunbeau, and Sweepstake. Other attractions are a rock garden, many lupines, and a number of varieties of Siberians.

At South Kortright, in Delaware County, John Swantak has approximately 700 varieties of named irises and seedlings. Here may be seen Kazak, New Adventure, Regina Maria, White Goddess, Wide World, Crispette, Native Dancer, Gene Wild, and Morning Sunlight.

Also in Delaware County, on Mt. Pleasant, at Walton, is Mrs. W. B. Melnick's landscaped hillside garden. Mrs. Melnick has over 400 modern tall bearded irises, most of which are recent varieties. About 1500 seedlings should be in bloom.

Over 700 varieties of tall are growing in the Martz Iris Garden, at Millport, midway between Elmira and the famed Watkins Glen, at the lower end of Seneca Lake. Here are displayed the Dykes Medal winners; the Award of Merit irises for the past five years; many of Dr. Randolph's seedlings; 25 table irises; 65 Japanese irises; and Siberians, spurias, Louisiana, and Dutch irises.

In Mt. Upton, 76 miles southeast of Syracuse, on Route 8, is the landscaped two-acre garden of Mert Brownell, a hybridizer who has introduced, among others, Lady Upton, Vale Yndaia, Lady o' Fame, Sunbeau, Sunsation, and Trailmaster. Guest irises that may be seen here are Henry Sass' Dancing Deb, Dotted Swiss, Maysky, Winter Imp, Sea Master, and Butterhorn; Opal Brown's Gosper; Watkins' Beth Corey, Lands End, Eleanor's Pride, Inverness, and Major Eff; Rundlett's Budding Pilot, Ken, and Candelabra; Swantak's Red Mite, and Shaffer's Heather Dell. Mr. Brownell has successfully grown irises on the same

land for 35 years, through the use of "lots of compost." Formerly the display garden of Mt. Upton Iris Gardens, this is now a private garden, and although the garden is posted to the general public, convention visitors will be welcome.

Also of interest to hybridizers are two gardens on Staten Island. One is that of Kenneth D. Smith, on Benedict Road, Dongan Hills. Mr. Smith is the originator of Violet Symphony, Blue Valley, Staten Island, Helen Collingwood, South Pacific, Golden Hawk, Lady Ilse, and many other varieties. One of the most beautiful privately-owned gardens in the New York area, its spacious beds feature Mr. Smith's recent introductions. At 1 Fairview Avenue is the garden of Edwin Rundlett, among whose introductions are Mary Ella, Ken, and Whirling Girl. Although Mr. Rundlett is growing many recent varieties, such as Swan Ballet, Alice Lemen, June Meredith, Chock Full, Exotic Blue, to mention a few, this is a hybridizer's garden "jam-packed with strange crosses." Bridges spanning the Arthur Kill connect Staten Island with the New Jersey highway system, but a memorable approach to the Island is the five-mile ferry ride (for a nickel!) from the Battery, on Manhattan's southern tip. The Rundlett garden, which is near the West Brighton Armory, may be reached from the ferry slip on the Victory Boulevard bus to Slosson Avenue. As the blooming season is a little earlier than that in Syracuse, the best time to visit these gardens is prior to the annual meeting.

At Schenevus, in Otsego County, 15 miles northeast of Oneonta, is the garden of the Joseph Ryans. Among recent varieties that may be seen here are Deep Black, Pink Clover, Dream Dance, Native Dancer, Dark Chocolate, Bright Halo, Orchid Ruffles, Generous, Blue Throat, and Morning Sunlight.

Professor McGarvey, RVP of Region 2, lives on a farm which is located three miles west of Oswego or about thirty-five miles northwest of Syracuse. He has a hybridizer's garden which reflects the interests of a person who is more concerned with genetics and why irises are colored and shaped as they are than with their introduceability. His garden is primarily a seedling garden and all of the named varieties found in it are there because of a past, present, or future usefulness in some hybridizing program. Situated close to the shore of Lake Ontario, the bloom season is usually a week later than the Syracuse season. Serious hybridizers who are traveling by auto will find this garden an interesting place to visit on their way home from the convention.

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The Annual Meeting in Syracuse

Although most of the Empire State, this second week of February, is in the grip of a blizzard which has brought a protective blanket of more than three feet of snow to iris gardens, a committee long engrossed in its work has now completed the program of events for the AIS annual meeting in Syracuse, June 4 to 7.

Subcommittees will now go to work on the details, and in the course of time the iris beds will again come to life and absorb the attention of the eleven tour hosts. The committees and the tour hosts will eagerly await the climax to their devoted efforts to make the next annual meeting a memorable occasion in AIS annals.

The close of Wednesday, June 4, will find the annual meeting fully launched. Registration will commence in the forenoon. The Directors will meet. In the afternoon buses will be available for visits to two gardens in Syracuse. In the evening will be held the annual business meeting of the AIS, presided over by President Marion R. Walker. This will be followed by a reception for registered guests by the Empire State Iris Society. Convention headquarters will be in the Hotel Syracuse.

Thursday will be Rochester Day. The buses will make the round trip to the Flower City (one of Rochester's nicknames) over the Thruway, a distance of approximately 100 miles. The gardens to be visited are those of the Lowell G. Harders, Warren J. Mack, and the H. C. Porrecas. Camera fans are offered the option in the afternoon of a conducted tour of Eastman Kodak. In the evening, in Syracuse, a speaker from Eastman Kodak will talk on color photography. This will be followed by business meetings of the Median Iris Society and other groups.

Friday's tour will be to Ithaca, 57 miles south of Syracuse. Dr. L. F. Randolph's extensive iris plantings, on the heights overlooking Cayuga Lake, will be visited in the forenoon. At Cornell University, in the afternoon, there will be lectures on iris diseases, insect pests, classification, artistic arrangements, and demonstrations of embryo culture and iris chromosomes. The evening program, in Syracuse, will include panel discussions on iris culture, hybridizing, median iris breeding, remontants, photography, and a meeting of official AIS judges.

On Saturday, the 7th, five gardens in and about Syracuse will be visited. The banquet, the usual grand finale, will occur on Saturday evening. Highlights will be the announcement of the annual awards and an address by Dr. S. M. Emsweller, of the U. S. Department of Agriculture, on the breeding of ornamental plants.

We think we have the ingredients for a good* annual meeting.

Plan to spend a little extra time in our great State. Between the magnificent Niagara Falls and the tip of Long Island, 500 miles distant, and the Adirondacks to the north, there is much to see. To mention a

* Hollywood would call it super-colossal!

few attractions, there are the Finger Lakes, the historic Hudson Valley communities, the Thousand Islands in the St. Lawrence River, the unique museum of the Corning Glass Works at Corning, the Eastman Photographic museum in Rochester, baseball's Hall of Fame at Cooperstown, the S and P exhibition rose garden at Newark (east of Rochester), and innumerable vacation resorts of every kind.

Iris from New York State

In the Empire State Iris Society a number of members have been hybridizing to varying extents. With some it is a rather new venture, while with others, "pollen daubing" has been going on for a good many years.

It is with pleasure that we list some of the more recent registrations as well as seedlings under number, which have been developed by our members during the last few years, and which may be seen in various gardens throughout the state.

The names at the ends of listings refer to convention tour gardens where that iris is guested. Locations of these gardens will be found at the conclusion of the list. Some irises are to be found only in the gardens of their hybridizers. Names and addresses of these hybridizers' gardens follow also.

YELLOW

Batuque (Peckham), reverse yellow bicolor.

Bright Halo (Randolph), yellow standards, white falls and yellow center.

[Harder, Hawthorne, Porreca, Randolph]

Bullis 57-2 "Glitters," deep orange-yellow, gold-brown blaze radiating into yellow falls; part onco.

Coronation Gold (H. F. Hall), yellow self. [Childs, Hall, Harder, Meyer]

Elegant Miss (Fass), yellow bitone. [Mack]

Gold Ensign (T. Hall), deep yellow self. [Hall, Meyer]

Green Fashion (Fass), medium olive-green self. [Mack]

Janie Vaughn (K. Smith), lemon-yellow, white zone in center of falls. [Randolph]

Lady Upton (Brownell), standards chrome-yellow, falls white edged with color of standards.

Magic Melody (H. F. Hall), late light yellow. [Hall, Meyer]

McGarvey 55-56 Neg Ten #1, light yellow bicolor. [Childs, Harder, Hawthorne]

McGarvey 56 Ola Tob #1, yellow blend, lightly-tinged red. [Harder]

McGarvey 55-56 Y2, ruffled yellow, tangerine beard. [Harder, Hawthorne, Meyer]

Morning Sunlight (Randolph), yellow self. [Childs, Harder, Hawthorne, MacAndrews, Meyer, Porreca, Randolph]

Petutti (Peckham), yellow blend.

Porreca 178, chartreuse. [Harder, Hawthorne, Mack, Porreca]

Randolph 54 105-1, yellow amoena. [Randolph]

Splendored Thing (Cassebeer), deep, golden yellow self.
 Sweetheart's Folly (Cassebeer), large creamy white and yellow bitone.
 [Harder, MacAndrews, Randolph]
 Trailmaster (Brownell), rich yellow standards, brown falls; tall. [Hawthorne, Randolph]
 Wedding Ring (Fass), light yellow standards, falls white with yellow margin.
 [Mack]

WHITE

Cassebeer 676, waved and ruffled "cold" white. [Randolph]
 Cassebeer 705, blue-white. [Randolph]
 Cassebeer 712, large white, greenish yellow at haft. [Randolph]
 Castorian (Peckham), white self.
 Hall W-49, fragrant white. [Childs, Hall, Harder, Hawthorne, Meyer]
 Hall W-90, large, sweet-scented white. [Childs, Hall, Hawthorne, Meyer]
 Harder 403-3, wide white, white beard. [Harder]
 Harder 403-8, smooth, tailored, real-white. [Harder]
 McGarvey 57x63, white, overlaid yellow; near-amoenia. [Hawthorne, Meyer]
 Melnick 57-F-2, greenish white.
 Natonico 2-55-S, white, yellow beard.
 Partch 56-G-6, white, orange beard. [Childs]
 Parthenia (Peckham), white self.
 Patrician (H. F. Hall), white, golden haft. [Childs, Hall, Meyer, Randolph]
 Pearl Mosque (K. Smith), ruffled, mother-of-pearl white.
 Popcorn (K. Smith), white, gold heart. [Randolph]
 Randolph 51258, white. [Harder, Randolph]
 Rundlett 5373, ruffled white. [Childs, Mack, Meyer]
 Rundlett 5590, cold white, bluish flush in center. [Mack, Meyer, Randolph]
 Snow Top (T. Hall), ruffled white. [Hall, Hawthorne, Meyer]

RED

Captain Johnny (Shaffer), claret self, turning rust at maturity. [Harder, Porreca]
 Dapper Dan (Porreca), burgundy red with "horned" beard. [Porreca]
 Hall R-219, deep red self. [Hall]
 McGarvey 56-RB1 #1, red blend, tangerine beard. [Bisdee, Harder, Hawthorne, Meyer, Randolph]
 Onondaga (T. Hall), deep red self. [Bisdee, Childs, Hall, Harder, Meyer]
 Radiant Red (H. F. Hall), red blend. [Childs, Hall, Meyer, Randolph]
 Randolph 53 256-3, red. [Randolph]

PINK

Bullis 55-14, "Super Pink," red-pink self, intense red beard.
 Elizabeth H. (Bertram Hall), real pink, orange beard.
 Mighty Sweet (Lewis), rosy pink self. [Harder]
 Natonico 156 S, satiny pink, orange beard.
 Personality Plus (K. Smith), flamingo pink standards, lilac pink falls, bright tangerine beard. [Randolph]
 Pink Panoply (Cassebeer), dusty, coral-pink bitone. [Harder, MacAndrews, Randolph]

Quist C8-1, pink. [Harder, Randolph]
 Quist C8-4, pink with yellow flush. [Harder, Randolph]
 Randolph 53 158-1, coral pink. [Harder, Randolph]
 Swantek 57-8, very pale shell pink, coral beard.
 Sweet Whisper (Brownell), light, dusty-rose pink. [Harder, Hawthorne, Randolph]

BLUE AND BLACK

Azure Twilight (Swantek), blue bicolor, white striations at haft. [Harder, MacAndrews]
 Bermuda Sea (Cassebeer), dark blue, white patch at beard. [Harder, MacAndrews]
 Black And Blue (Randolph), dark blue standards, black falls. [Hawthorne, Randolph]
 Brownell 3054, black.
 Exotic Blue (Randolph), blue, with green bud and beard. [Harder, Hawthorne, Meyer, Randolph]
 Harder 403-12, large, ruffled medium blue. [Harder]
 Icebreaker (Lewis), light blue self. [Harder]
 Ken (Rundlett), marine blue. [Harder, Mack, Meyer, Randolph]
 Porreca 108, lavender-blue self from Capitola. [Harder, Porreca, Randolph]
 Porreca 140, bright blue, intensely fragrant. [Harder, Porreca, Randolph]
 Porreca 143, ruffled, light lavender-blue. [Harder, Hawthorne, Mack, Porreca]
 Randolph 53-244-2, medium dark blue. [Randolph]
 Smith 56-54, ruffled real-blue.
 Swantek 51-76, deep blue, brown throat. [Harder]
 Vale Yndaia (Brownell), chicory blue. [Harder, Hawthorne, Porreca]
 Willowbrook (T. Hall), tall blue. [Childs, Hall, Harder, Meyer]

LAVENDER, LILAC, PURPLE, AND VIOLET

Brownell 1154, light purple, large white beard.
 Brownell 2554, dark purple, indigo blue beard.
 Bullis 57-3, dark purple self, V-shaped white blaze extending nearly the length of falls; $\frac{1}{4}$ onco.
 Chuck Full (Fass), violet self, lighter center in falls. [Mack]
 Harder 308-1, violet self with signal patch. [Harder]
 Heather Dell (Shaffer), heather purple with brown hafts. [Harder, Meyer, Porreca]
 Land Sakes (Lewis), lilac self.
 Melnick 57-A-2, lavender.
 Randolph 51-223-1, medium violet. [Harder, Randolph]

PLICATAS

Brownell 1354, red plicata.
 Inner Light (Rundlett), blue and white plicata. [Harder, Mack, Meyer, Randolph]
 Natonico 155 S, white, marked violet-blue.
 Rundlett 5461, violet marked plicata. [Childs, Mack, Meyer]
 Whirling Girl (Rundlett), huge clear white, narrow feathering of blue-violet. [Childs, Harder]

APRICOT

Mary Ella (Rundlett), apricot. [Harder, Mack, Meyer, Randolph]

MISCELLANEOUS

Bullis 57-1 "Tricolor," standards pinkish-blue, hafts and upper falls clear white, lower 2/3 of falls red.

Hall B-74, bronze and yellow blend. [Hall]

Edwards 53-79, Siberian. Violet.

White Swirl (Cassebeer), Siberian. Large, pure white. [Harder, Meyer]

The names and addresses of the convention tour gardens are listed below:

Rochester Area—Mr. and Mrs. L. Harder, 460 Bromley Road, Churchville
Mr. H. C. Porreca, 287 Maple St., West Henrietta
Mr. Warren Mack, 650 East River Road, Rochester

Ithaca Area —Dr. and Mrs. L. F. Randolph, 118 Shelden Road, Ithaca

Syracuse Area —Mr. E. L. Bisdee, 20 Grove St., Baldwinsville
Mr. and Mrs. W. Childs, Rt. 1, Box 357, Central Square
Mr. J. Farnham, 108 Cherry Road, Syracuse
Mr. T. W. Hall, RD #1, Manlius
Mr. and Mrs. L. Hawthorne, RD #1, Rock Rd., Verona
Prof. A. MacAndrews, 206 DeWitt Road, Syracuse
Mr. and Mrs. B. Meyer, Woodchuck Hill Road, Fayetteville

* * * * *

New York State hybridizers whose gardens are not on tours but are open to visitors:

Mr. and Mrs. M. BrownellMt. Upton
Mr. Charles BullisMacedon
Mr. and Mrs. F. CassebeerStrawtown Road, West Nyack
Mrs. H. L. Edwards235 Koehl St., Massapequa Park, L.I.
Mr. and Mrs. P. FassClay Pitts Road, Greenlawn, L.I.
Mr. Bertram HallClavarack
Mr. and Mrs. J. Lewis231 Broad St., Salamanca
Dr. William McGarveyState University of N.Y., Oswego
Mrs. W. MelnickMt. Pleasant, Walton
Mrs. M. Natonico38 S. Main St., Batavia
Mr. L. Partch28 Griswold, Binghamton
Mrs. W. PeckhamEagle Valley Road, Sloatsburg
Mr. and Mrs. O. QuistHempstead Road, Spring Valley
Mr. and Mrs. E. Rundlett1 Fairview Ave., Staten Island
Mr. Harry Shaffer4 Washington St., Scotia
Mr. and Mrs. K. SmithBenedict Road, Dongan Hills, Staten Island
Mr. John SwantekBox 14, South Kortright

VERONICA M. QUIST, *Chairman*
ESIS Hybridizers' Displays

Exciting New Iris for 1958

From Melrose Gardens

RT. 6, BOX 424, MODESTO, CALIF.

The first three iris from Mr. Sass may also be ordered from:

EL DORADO IRIS GARDENS
500 E. Locust, El Dorado, Kansas

HIDDEN FIRE (H.E. Sass-Helen Graham) 40"NET \$20.00

Uniformly well branched stems carry big flowers that have wide, ruffled, domed standards, and broad and fluted, flaring falls. So far—very good. But how do we capture the color in words? To contrast intensity with delicacy; frivolity with smouldering warmth.

Delft rose is the color; the gay rose lavender flush of an April morning, but the fires of spring are burning deep in the heart of the flower and the glow of it reflects on the base of the standards with a coppery gleam, and on the falls with a deeper bronze overlay along the hafts. Though the fire is deep inside, it cannot be contained and the flame escapes onto the falls to form a blazing orange beard.—There it is, and the effect is wonderful!

GABRIEL'S HORN (H. E. Sass-H. Graham) 40"NET \$25.00

A symphonic sweep of color envelops the spring garden; great chords of harmonious blends; clean pastel melodies; sharp fluting blues; the blare of brassy tones in counterpoint to the dark sonorous colors but above it all, clear and bright, the trumpet call of GABRIEL'S HORN. Through the deep velvet pile of the wide flaring falls and out of the wavy domed standards glows a full-voiced orange-yellow and the overtones glitter and sparkle in the sun. An iris that is so beautiful and radiant it will become an actual experience in your spring garden.

Mr. Henry Sass thinks that this is by far the best yellow ever to come from his famous gardens where such all time great yellows as OLA KALA, MATTIE GATES, and SOLAR MAID were originated.

BLUE SHADE (H. E. Sass-H. Graham) 25"—Border IrisNET \$5.00

This iris will help re-emphasize the long neglected Border iris. A very useful and delightful class of iris and this new blue gives us another really fine flower to plant out in front of the taller varieties. Broad flaring falls and domed standards in an especially good intense shade of medium blue. Well branched stems.

MARION HAMILTON (Earl Roberts) 36" (Muhlestein 50-6: sib to Gold Ruffles x Pink Formal) X Sweet Marie.NET \$15.00

Simple, clean and exquisite; soft of manner and a perfect lady. The color of this iris is peach, that subtle pastel blending of pink and apricot, and the hue is consistent throughout, not a breath of off-color, or a line to mar it. Even the tangerine beard is soft. The texture is of soft satin, befitting a gentle lady, and the falls and standards are extra wide and full with very heavy substance, not soft. Well-branched stems. One of the first to bloom and welcome you into the spring garden where she will remain the leading lady for many years.

Co-introduced with Orpington Nurseries, Kent, Eng.

INNUENDO (Sanford Babson) 38" (Figurine X Savage)NET \$15.00

When you first see this iris, you'll probably do a double take. You'll be walking down the path, and there it is, and you'll say, "Umm, a pretty blend," and walk on—for a couple of steps. Then suddenly you'll realize that you hadn't taken in all you'd seen and you'll whirl around, and sure enough, "It really IS a pretty blend." You see, on that first casual glance, you didn't notice how the pert pastel beige standards were actually a rosy lavender on the inside of the petals, and how the light from that color

showed through, giving the standards the effect of being "lit up," or how the shadow fell on the deeper beige falls and spread the rose-lavender color all over them, and how it deepened on the haft to a warm rosy brown. And that beard, how it blended in, being actually yellow but the tips were bronze and softened it significantly. It's all there and beautiful. Of course, you won't pass up the fact that the falls are broad, ruffled and flaring, and that the stalk is well-branched. Now that you're really looking, "WHAT AN IRIS!"

NONA (Roy Davidson) 38" (Char Maize X Clovelly)NET \$25.00

This is probably the cleanest green-yellow we have seen. The form is taken from the parent Char Maize and is as full, but more tailored and with a waxier substance. The flower has a silken sheen and the green tint is quite distinct. Not only a color novelty, but a fine iris.

Again we are happy—to be co-introducing NONA with its originator, Roy Davidson, Colton, Wash.

FILAGREE (Jim Melrose) 34" (Truly Yours X Lilac Lane)NET \$15.00

The first introduction of the originator of MELROSE GARDENS, and one that we are proud of.

Some old master of "goldsmithy" could have created the delicate, intricate pattern of this iris, and indeed he might have considered it one of his masterpieces, for as an iris, this is a new and important advance. The enchantment of the flower is in the intricate lacing around the edges of the petals, like the fanciful filagree work that the artisans have accomplished with precious metals. And the color is as rich and polished, a clear and clean yellow, vigorously shining. Husky plants. Good increase. Floriferous.

PARAKEET (Earl Roberts) 20" (Widget X Welch 444) Miniature tall bearded (Table) irisNET \$3.00

A new Color and a new Look for the Miniature Tall Class. Perky flowers with horizontal falls and domed standards. The standards are amber buff and the falls pastel violet edged amber buff. Well-branched wiry stems carry ten buds above the neat foliage. Fine in any way you use it,—in the garden or in arrangements.

BAUBLE (Alice White) 10" to 12" Standard Dwarf (diploid tall sldg. X Yellow Frills)NET \$2.00

Just that,—a bauble, to the iris breeder (it is sterile) but to the gardener (and this really is more important) it will be one of those precious baubles that are treasured with fondness through the years. Small 2" flowers in bright yellow with domed standards and flaring falls on wiry but sturdy stems and low foliage.

NEST EGG (Dave Childs) 12" Standard Dwarf (Crysoro X Welch H 502: Carpathia selfed)NET \$3.00

From an unusual cross, the interesting feature about this little hybrid is its fertility and the easy germination of its seed. We have had full pods on it by chamaeiris, pumila, T.B., Lilliput, and self. A beautiful color that is a bright orange-yellow, slightly bitone in effect. Flowers a bit large for its height, but the flower is well above the low foliage. Both standards and falls are ruffled and very wide, but all come to a distinct point at the tips.

BARIUM GOLD (Earl Roberts) 4" (Carpathia X ?) Miniature Dwarf. 31 chromosomes.NET \$3.00

A bright barium gold, or orange-yellow bitone with a feature that is almost unbelievable, considering that the chromosome count would indicate that it is a pumila, this little fellow has a bright orange beard! Very fine pumila type flower and foliage. Vigorous and floriferous.

PEACHES AND CREAM (Fred Taylor) 40" (I. ochroleuca X lemon yellow sldg.)NET \$10.00

This spuria we like very much. A flaring, tailored cream with a big peach-yellow spot that covers most of the falls. Parts are wide and have heavy substance. Sturdy tall stems and good foliage. This spuria seems to be virus resistant. The flowers are extra large.

Something New!

“THE NOVELTY SHOP”

Wherein are introduced iris of DISTINCTION but with a UNIQUE DIFFERENCE.

BLAZE AWAY (Sanford Babson) 34" (Mexico X Tobacco Road) NET \$7.50

From a cross that has produced many great iris, comes this attractive flower that we have liked and watched in Mr. Babson's seedling beds for several years. It is a bright flower; the color is amber-yellow with deeper tints of amber at the tips of the petals. The standards are domed and closed and the horizontal falls are wide and rounded—and right in the middle of them, surrounding the bronze beard—is a big red maroon signal patch! This “blaze” rays out onto the falls but covers less than half of the area of the fall. The signal patch is inherited in the children of BLAZE AWAY; RATTAN (Babson '57) is one of its children.

GUNSMOKE (Earl Roberts) 36" (Sib. to Marion Hamilton)NET \$7.50

This is a subtle wisp of color that only a few will really appreciate but these few will find it both intriguing and lovely. The color is a light to medium, smoky, plum-brown; smooth and uniform throughout and the note of brightness is there in the flash of the tangerine beard. Both standards, which are domed and closed, and the falls, semi-flaring, are extra wide and fluted. The stem is well-branched and the plant is vigorous.

HAPPY IRIS SEASON TO YOU ALL—Free Catalog on Request.

Ben R. Hager **Melrose Gardens** *Sidney P. DuBose*

INTRODUCING

- MELOLITE (Caramel X Mellow Gold) Ruffled, soft yellow with wide flaring falls and closed standards. A self of Mellow Gold coloring with a slight semblance of lime. Profuse bloomer with heavy substance, good branching and heavy stalk of 34". S.C. 1955 \$20.00
- WEE BIT (Snow Flurry X Militza) X 43-5 (Titian Lady X Loomis S.Q. 70) Border iris perfectly proportioned 16". A small, luscious, soft peach self with harmonizing beard. Net \$5.00

Formerly Introduced

- VIOLET HARMONY Winner of the Dykes Medal in 1957. \$5.00
- HEATHERMIST Delicate pastel lilac. Wide flaring falls, crinkled edges. Medium size. Distinctive. H.M. 1957. \$18.00
- SWEET AFTON Starched, ruffled, very pale blue. Wide flaring falls. Closed standards. Vigorous. H.M. 1957. \$10.00
- MELLOW GOLD Soft mellow yellow, ruffled throughout, with a small white area on haft. H.C. 1952. \$7.50

LOWRY GARDENS

No catalogue

62 WALNUT PARK, NEWTON 58, MASS.

Excerpts from "Our Favorite Flower"

WILLIAM H. WICKER, Tenn.

If I were a minister of the gospel my text for this occasion would be that familiar quotation from the Scriptures which reads as follows: "Consider the lilies of the field I say unto you that even Solomon in all his glory was never arrayed as one of these." It may surprise some of you to learn that botanically speaking there are no native lilies in the Holy Land. An iris in many parts of the world is known as a lily. The Holy Land has many kinds of lovely native iris. Consequently, the numerous Biblical references to the lilies of the field are probably all, strictly and botanically speaking, references to iris.

The cultivation of iris by man dates back to remote antiquity. Over thirty-four centuries ago, or about 1500 B.C., an Egyptian Pharaoh had a cultivated garden for which iris plants were collected and brought back from expeditions in Syria. One of the newer varieties of bearded iris is named Thotmes III. This variety is named for the man who was probably the pioneer iris collector. Thotmes III was an Egyptian Pharaoh who sent an expedition into Syria to collect plants for his garden. His men brought back rhizomes of iris, and to this day the inscriptions and carvings on the old walls of the Temple of Thotmes III record this interesting bit of iris history.

Because of its beauty and adaptability, the iris had been grown and cherished by civilized races since the dawn of history. There are not only many very old varieties of iris, but there are also many brand-new varieties. In fact, I know of no other flower in which currently there is the intense interest in advancement by amateurs as you will find among iris growers. There are five thousand-odd members of the American Iris Society and approximately one-half of them are hybridizing, which for our purpose means producing new varieties by crossing older varieties by hand pollination. Insofar as size, color, and form are concerned, amateurs have done more for iris in recent years than the professionals have done for nearly any other flower.

* * * * *

Recently I became interested in photoperiodism of iris. Photoperiodism is a recently coined term used to designate the response of a plant or an animal to the relative length of day and night. Some plants, for example bearded iris and hemerocallis, require long days and short nights for flowering. While other plants, for example, asters and chrysanthemums, require short days and long nights for flowering. Except under such extreme ranges as would be highly injurious to the well being of the plant, the results of differences in temperatures, water supply, and light intensity have only a secondary intensifying or retarding effect on the date of flowering. The factor of first importance in the control



Violet Harmony, Dykes Medal winner 1957, is well on its way towards proving itself one of the finest varieties of all time. It is an introduction of Mrs. Franklin P. Lowry.

photo by cassebeer

of the flowering period is the duration of the daily illumination period. A change in the duration of the illumination period by covering a plant during portions of daylight periods, or giving the plant additional periods of artificial light will often radically change the blooming date.

According to an account in one of the Yearbooks of the United States Department of Agriculture,* plants of the same variety of bearded iris were potted in November and were put in different greenhouses. In one greenhouse every night a small electric light was burned for several hours. In response to this supplement to the short daylight period of the winter season, the iris plants immediately started growing, and flowered for Christmas. The temperature, water supply, and intensity of natural light were the same in the other greenhouse, but no artificial light was used in that place to supplement the daylight period. The iris in the greenhouse without artificial light did not bloom until the middle of April. This was only about two weeks earlier than the same variety bloomed in the same locality in the field. It is interesting to note that the artificial light that prolonged the period of illumination, and thereby caused the iris plants to bloom three or four months earlier than the plants in the controlled experiment was a weak electric light. This fact indicates that it is the duration rather than the intensity of the illumination that changes the blooming period.

I have about fifty iris plants potted in cans and hope to do a little experimenting in the form of exposing plants of the same variety to different photoperiods. It is probable that one of the reasons why new varieties of iris are not as rock hardy as their ancestors is that our hybridizers are doing entirely too much crossing of varieties of different light requirements.

Editor's Note: The foregoing are excerpts from "Our Favorite Flower," an address made by Mr. Wicker at the Annual Banquet of the Louisville Area Iris Society, December 5, 1957. Concerning photoperiodism Mr. Wicker has recently submitted the following information:

"On October 1, 1957, a plant of the bearded iris, Love Story, was planted in each one of three cans. For identification purposes these plants will be designated as Nos. 1, 2, and 3. On November 20th, Nos. 1 and 2 were placed in a heated greenhouse of the University of Tennessee Agricultural Experiment Station. No. 3 was left outside of this greenhouse. No. 1 was put directly under an electric light that burned every night, and No. 2 was placed in a nearby position in the greenhouse, but a partition made of brown paper kept the artificial illumination off of it. There was complete parallelism of conditions as to all three plants with the following exceptions: No. 3 had the temperature, moisture, and atmospheric conditions on the outside of the greenhouse; No. 1 and No. 2 had those conditions as they existed inside of the greenhouse; and No. 1 had the supplementary artificial illumination mentioned

* Yearbook of the United States Department of Agriculture 1920, Garner and Allard, Flowering and Fruiting of Plants as Controlled by the Length of Day, pages 377-396.

above. In January, No. 1 started growing as it normally would in the field in March. By February 1, 1958, No. 1 was in full bloom on a 36-inch stalk and had three well-developed increase fans. The size and number of the blooms and of the fans were comparable to those usually produced by this variety at its normal blooming date. On the same date, namely February 1, No. 2 showed only a slight increase in new growth and its new fans were only about two inches in height and only slightly higher than the new fans on No. 3. The growth conditions of No. 3 were similar in all respects to those of the same variety that were planted in the field a few days before Nos. 1, 2, and 3 were planted in cans."

YOUNGEST AIS MEMBER?

Pictured, is a brand-new member of AIS. No, it is not the man in the picture. It is little Miss Brenda Gay Williams, of Dallas. They "start-em" young in the "Lone Star State."

The Iris Society of Dallas makes it a practice each year to give a membership to AIS as a door prize. Little Brenda was the lucky one this time. Her daddy, Jimmy D. Williams, shown in picture, is a real iris enthusiast and a star-member of the Dallas society.



SOUTHWESTERN MICHIGAN IRIS SOCIETY

Southwestern Michigan Iris Society wishes to announce: We will hold Region 6—Spring Meeting for 1960 in Kalamazoo.

Any hybridizer wishing to send guest iris for display will be welcome.

Please send iris early this fall for planting so they will be established clumps for 1960.

Please contact Mrs. Roy A. Cronkhite—205 E. Maple St. Kalamazoo 33, Michigan for distribution of your guest iris.

Here Are Those Havens Again

We're sorry we ran out of so many Havens in 1957, but are happy that so many of you liked them. At this date (the middle of February) we can only estimate our crop, but we will fill as many orders as we can after we fill the orders already reserved for 1958.

STEEL HAVEN (hailed out for the convention) is an unusual metallic blue with blue beard. \$25.00

WHITE HAVEN—too belated for the convention—is a large milk-white round flower with blue beard. \$20.00

HEATHER HAVEN—typical onco-bred-heavenly color of pink-violet. Large flowers. Buy this one if onco hybrids do well for you. \$20.00

MOHR HAVEN—the doingest onco-bred I ever saw. Very large, ruffled grey-blue. See picture in January Bulletin 1958. H.M. \$20.00

MISS B. HAVEN—(Memphis Belle X Pink Formal) Large pink plicata with exceptionally white background. Beard light tangerine. Looks fragile, but takes the weather. \$20.00

BLUE HAVEN—fine ruffled tall blue. (medium in color scale). Late . . \$20.00

VIOLET HAVEN—led voting for Honorable Mention in 1957. We used to pick violets in the woods in Kansas City just about this color. \$25.00

AZURE HAVEN—H.M., very ruffled early light blue. Lighter area at top of falls and the very pale beard matches this area. Very good grower and is most floriferous. \$20.00

PURPLE HAVEN—H.M. Vatican Purple X (Robinhood X Sable). Bright purple self that seems to do well everywhere. Tall for a purple. \$20.00

PRESENTING FOR 1958

FLUTED HAVEN—Very white, very fluted. Picture in October Bulletin, 1957. Stock very limited. \$25.00

MARINE HAVEN—(Snow Flurry X Chivalry) X Lake Shannon. Intense medium blue. Good substance and ruffled. \$20.00

GAY HAVEN—(Snow Flurry X Rose Sails) Answering inquiries, this is 61La you have been asking about. Bright rosy petunia with brilliant yellow beard. Heavy substance with adequate ruffling. But don't buy this unless you really like them gay. \$20.00

Please let us know about the Havens you are growing—good, bad or indifferent. Do you like them or not like them?

This is the only list we put out and all prices are net.

LEO AND SERLENA REYNOLDS

4284 AUBURN RD., MEMPHIS 16, TENNESSEE

You are always welcome at Twintrees

1958 Introductions

ROYAL RUBY—(Red Hussar X Savage) No. 207813. This is a rich medium to dark red self; oxblood red according to R.H.S. charts. I have seen many of the new red, but believe this is nearer to being a true red than any other. It has neither the copper influence of Red Hussar nor the bluish red of Savage. The flowers are very large with flaring falls, which are beautifully waved at the edges with closed standards. Hafts are very wide being 3" across and without markings. Stalks average 36" and are thick and strong at the base with three branches perfectly spaced. Judges who have seen it speak of it as an outstanding iris. A few for sale at\$35.00

GOLDEN BUTTERCUP—(Solid Gold X Golden Shell) No. 20912. This is a very deep gold self and its depth of tone corresponds with R.H.S. charts No. 5 Buttercup and is much deeper in tone than either parent without being brassy. It has the vigor of Golden Shell and the large size of Solid Gold with evenly balanced standards and falls. Stalks average 40" with three branches and large well-spaced brilliant flowers that catch the eye from the distance in the garden. This is definitely an iris for those who are breeding for deep golds. A few for sale at\$30.00

ISLE OF WIGHT (Paratrooper X Cahokia) No. 16327. This is an extremely well-branched white with tall heavy stalks 44" with three and four branches carrying flowers nicely waved with heavy substance carried to the edges. Its pod parent always was and still is one of my favorite whites, due to its never having failed to bloom to perfection for over 10 years in my garden. Its combination with Cahokia has produced a clean white that is unusually hardy.\$25.00

IVORY SATIS (Royal Ermine X White sdlg.) 40", a very rich cream self with deep golden throat and beard. Deeper cream and gold than Royal Ermine. Fully closed standards with waved falls.\$20.00

SHIPMENT FROM JULY 1st ONWARD. CASH WITH ORDER. WRITE:

RICHARD GOODMAN

253 GLOOMINGBANK RD. • RIVERSIDE, ILLINOIS



AMERICAN SPECIES IN GERMANY

HARRIETTE R. HALLOWAY, N.J.

Four years ago a request from the Director of the Arboretum of Cologne University came to Cedar Brook Park Gardens, Plainfield, N.J. Because of their war losses they wanted to restock and asked us to send them American species and any other species not already on their list.

The request was discussed with Dr. Robbins of the New York Botanical Gardens who had just returned from a horticultural conference in Europe. His advice was, "Do help them if you can. The people over there are trying so hard to restore their collections."

We sent a large, widely representative collection of species, a number of plants of each variety, for which we received enthusiastic response.

Last summer, at our request, while Mr. Robert Clarke of Rutgers University was inspecting hollies in England and on the Continent he took time to go to the Arboretum at Cologne. He not only reported splendid results—quantities of good plants, correctly labeled and very well grown but brought back pictures of one corner of the acre. At a recent meeting we had the pleasure of seeing them on the screen.

Guest Iris for the National Meeting In Portland — 1960

We, of Region 13, wish to announce the policy that will be followed in handling guest iris for the 1960 National Meeting in Portland. We have given much thought to the problems involved, and we feel the following regulations will be satisfactory to you.

- A. Guest iris will be received during the planting season, up to September 15, in 1958 and 1959.
- B. Contributors will be limited to not more than five different varieties or seedlings.
- C. The following data must accompany each rhizome:
 - 1. Originator's name and full address.
 - 2. Name or number of each rhizome.
 - 3. A full description of each iris.
- D. All rhizomes and their increase shall remain the property of the contributor. In July after the meeting, all will be returned, express collect, or destroyed, according to the wishes of the contributor. None will be distributed.
- E. All guests will be displayed under the name or number given by the contributor, and the name of the originator, if different than that of the contributor.
- F. All iris will be grown by experienced persons and will be given better than average care. Growers and members of Region 13 will not be responsible for loss of any plant due to causes beyond their control.
- G. All rhizomes should be sent to

George A. Shoop
2009 N. E. Liberty
Portland, Oregon

INVITATION TO CEDAR BROOK GARDENS

As part of our Twenty-fifth Anniversary activities, May 1957, the Park Commission placed a boulder near the main entrance to our gardens. To that boulder was affixed a bronze tablet, given by the Plainfield Garden Club, inscribed thus:

“This Iris Garden was established in 1932 with aid from officials of the American Iris Society, by The Plainfield Garden Club and The Union County Park Commission.”

It is hoped that if AIS members, attending the Annual Meeting in Syracuse, continue this far east, they will visit the Cedar Brook Park Gardens which contain collections of all types of iris, and being in a public park, are always open.

HARRIETTE R. HALLOWAY
Plainfield, N.J.

Noyd's 1958 Introductions

TALL BEARDED

APRICOT DANCER—L to VL. Medium height. (June Bride X Temple Bells) A very lacy orange-apricot self even to the beard. Flaring falls and lacy style arms.\$20.00

APRICOT DREAM—M to L. Medium height ((Reveille X New Horizon) X Apricot Glory) X Temple Bells. A deep apricot self with a self beard. Slightly ruffled and fragrant.\$20.00

COTLET—M to L. Medium height. ((Reveille X New Horizon) X Apricot Glory) X Temple Bells. A light apricot self with a deep apricot beard. There is a pink flush around the beard. Horizontal falls. Fragrant.\$20.00

Flaming BEARD—L. Medium height. ((Buffawn X Loomis Pink Sdlg.) X New Horizon) X Salmon Shell. A peachy-apricot self with an amazing red-tangerine beard extending well down on the falls. Ripples at the sides of the falls.\$20.00

GREEN TINGE—M. Medium height. (Dixie Belle X Spanish Peaks) A flaring white self with green-gold at haft. Reverse of falls light green. Sibling to Angela Mia.\$10.00

LAKE CHELAN—M to L. Medium height. ((Plough's WI Cream X Treasure Island) X Gloriele) X Chivalry. A deep blue self even to the beard. Lighter area around beard. \$20.00

LILAC PARADE—M to L. (Plough's Prairie Sunset X Cigarette) X Queen Elizabeth. A very clean velvety wine-red self with a golden brown beard. Flaring falls.\$25.00

ROYALTY VELVET—M. Medium height. (Butterfly Wings X Cahokia). This light blue self had dark violet-blue veins in the falls. The beard is yellow and there is a small amount of olive-ocre at the haft. Ruffled and flaring. H.C. '57.Net \$25.00

ALL THE ABOVE ARE GOOD SIZE, WELL-BRANCHED AND HAVE GOOD SUBSTANCE.

The following gardens are displaying some or all of these iris: Chet Tompkins, Canby, Oregon; H. E. Harder, Churchville, N.Y.; Greater Kansas City Test Garden, Kansas City, Mo.; Robert Carney, Memphis, Tenn.; Ira Williams, 1624 Queenstown Rd., Okla. City, Okla.; Opal Brown, Walla Walla, Wash.; Rex Brown, 14920 Highway 99, Lynnwood, Wash.

GLACIER QUEEN (Midge Awalt) M to L. We are happy to introduce this fine tall ruffled, cool white for Mrs. Awalt. It was well liked in our garden last year and we have good reports from Calif. on its performance. Very long lasting blooms. \$20.00

Other Noyd Introductions

ANGELA MIA ('56) \$15.00, APPLE CAPITAL ('57) \$20.00, A.Z. WELLS ('53) \$1.50, CHIPITICA ('56) \$5.00, CENTER GLOW ('57) \$10.00, GOLDEN FLASH ('55) \$5.00, INKY BLUEBEARD ('56) \$15.00, LACY ORCHID ('57) \$10.00, LEMON MERINGUE ('57) \$10.00, PINK MAUVE MOHR ('56) \$7.50, PIN UP GIRL ('56) \$10.00, SAPPHIRE SEA ('56) \$10.00, SEVENTEEN ('57) \$10.00, SUN FESTIVAL ('57) \$15.00, and VALIANT OLA ('55) \$1.00.

FREE LIST • NO COLOR

NOYD'S IRIS GARDEN

1501 FIFTH ST.

WENATCHEE, WASH.

Murray Introductions for 1958

BON BON PINK—(Talley-Ho) X (Cherie x Pink Cameo) X (Pink Formal).

This is a large pure pink self, except for a slight area of lighter pink at haft—not white. Very broad petals. Firmly closed standards; rounded flaring falls, pink beard. Heavy substance. Height 32", low branching—many flowers. For those who have wanted a real pink iris, this should meet their need.NET \$20.00

GLORIETA—(Jasper Agate x Nightingale) X (Apricot Glory x Melody Lane).

A very large red-toned apricot self. Firmly closed standards; flaring falls with tangerine beard. Smooth broad petals. Clean—not a mark of any description on it. Height 42" with good branching. This is not an orange or yellow apricot; it has red infusion in its makeup.NET \$25.00

FORWARD LOOK—(#269-51: Mexico x Glittering Gold). A large bi-tone.

Standards are firmly closed of bright cream or light yellow. The horizontal falls are glistening golden apricot-brown blend, with yellow beard. Heavy substance. No reticulations or markings whatsoever. Height 40", with good branching.NET \$18.00

FLOR de ORO—(Glittering Gold) X (Rose Bowl x Golden Spike) X (Ola Kala).

Large glistening deep gold self. Broad and beautifully formed. Deep gold beard. Heavy substance. Smooth and clean—no markings of any description. Height 32", low branching.NET \$18.00

BETA LIBRA—(Green Chance) X (Appointee x Carolyn Burr) X (Greenback).

Very large light sea green self. A finished iris of fine form and substance. Broad form with closed standards. Semi-flaring falls, lemon beard tipped purple. Height 34", good branching. Stock very limited.NET \$15.00

NOTE: I wish to emphasize that the above named iris, as well as my other recent introductions, are void of markings of any kind—All reticulations have been bred out.

1957 Introductions: Classic Yellow \$15.00; Fiery Gleam \$14.00; Angel Glow \$8.00 and Color Magic \$7.50. See April 1957 Bulletin for descriptions.

GEORGE MURRAY

20520 JUANITA AVE., COVINA, CALIFORNIA

PRICE LIST ON APPLICATION

IRIS SOCIETY FORMED

In February of 1957 the Miami Valley Iris Society was formed by Mrs. Gloria Richardson with the co-operation and assistance of Mrs. Herbert S. Shinkle. The purpose of the club is to create interest in growing more and better iris and to acquaint the public with the progress being made in the iris field. We are affiliated with the AIS and are planning an AIS accredited show May 24-25, 1958, in Dayton, Ohio. We hold six meetings per year and Professor Henderson of Huntingdon College will be guest speaker in April. Our officers are as follows: Pres., Mrs. Gloria Richardson; 1st Vice-Pres., Mrs. Harry Wilkie; 2nd Vice-Pres. and Program Chairman, Mr. Ward B. Williams; Recording Sec., Mrs. F. R. Schuster; Corresponding Sec., Miss Ann Tucker; Treasurer, Mr. Horace Wright; Librarian, Mrs. Doris Butler; Horticultural Advisor and State Chairman, Mrs. Hebert S. Shinkle. The Show Chairman is Mrs. C. W. Schmalstig and Co-Chairman, Mrs. Homer Jacobs. The Advisory Committee for the show includes Mrs. Gloria Richardson and Mrs. Herbert Shinkle.

We would be most happy to welcome any who would care to stop and visit for a while on their way east for the national meeting. The weatherman has promised to give us plenty of iris to display at that time.

MRS. B. SHINKLE
Dayton 15, Ohio

HUNTSVILLE ORGANIZES

A Local Chapter of the American Iris Society was organized in Huntsville, Alabama, the first of July 1957.

At the organizational meeting it was agreed that the club would meet quarterly. The following officers were elected: Mrs. R. J. Lowe, President; Mr. W. T. Bledsoe, Vice-President; Mrs. Kenneth Noojin, Secretary; and Mr. C. W. Knight, Treasurer.

There are at present thirty members of the Local Chapter with thirteen members affiliated with the American Iris Society. The membership includes Mrs. E. A. Couch, Guntersville, Alabama, a well-known authority on the growing of iris, and Mrs. Walter Hargett from Madison, Alabama.

Plans are underway at the present time for the second iris show to be held in Huntsville. There is a great deal of interest in the growing of iris in Huntsville and the show scheduled for next April promises to be even better than the one held last spring, although at that time much enthusiasm was created among the local growers of iris.

MRS. C. W. KNIGHT
Huntsville, Ala.

EXHIBITION RULES AND SUPPLIES

The Exhibition Rules and Regulations of the American Iris Society and the following show supplies may be secured from Mr. J. Arthur Nelson, Director of Exhibitions, American Iris Society, 3131 North 58th St., Omaha 4, Nebraska.

1. Official Rules and Regulations Governing all Shows and Exhibitions; 30 pages of material covering rules and regulations, suggested show officers and duties. 15¢ each
 2. Information Handbook for Exhibition Judges. 10¢ each
 3. Official Color Classification; alphabetical list of iris classed by color number. Makes a good schedule for specimen classes. Will be superseded by a new book at the end of the 1958 bloom season 10¢ each
 4. Entry tags. Punched for use with rubber bands or strings. 65¢ per 100
 5. Secretary's sheets. Space for section and class number, names of winning exhibitors and varieties, and remarks. For use of judges' clerks in recording winners. One needed for each class in show. 1¢ each
 6. Award cards. Blue, first; yellow, second; white, third. 2¢ each
 7. Purple satin rosettes imprinted with gold:
 - A. One for "Best Specimen in Show" and so imprinted; also one streamer with "American Iris Society." 50¢ each
 - B. One for "Artistic Sweepstakes" and so imprinted; also one streamer with "American Iris Society" 50¢ each
 8. Seedling classes: "Recommendation for Exhibition Certificate," should be given to every AIS judge who officiates or visits the show so that the judges can recommend outstanding seedlings. No Charge
 9. Application for Awards. One for each show; no charge. To be filed with Director of Exhibition after the show, and contains places for statistics of show, names, and complete addresses of winners of Silver and Bronze Certificates; and places for certification by AIS judge and show secretary or chairman. No charge
 10. Silver or Bronze Medals: In lieu of certificates. \$3.50 each. Engraving and shipping free. If possible, place order for medals when application for awards is made.
- Please add ten per cent to cover postage or shipping charges.

Tempest in Teapot ? ? ?

*(Or an Open Letter to the Readers of the Bulletin
Who Grow Tall Bearded Irises)*

GEDDES DOUGLAS, TENN.

Good Friends:

In the past few weeks I have received several letters concerning an editorial which I wrote in the January issue of the Bulletin. I thoroughly sympathize with the sentiments expressed in those letters and most certainly understand the point of view taken. Those who have written me are quite evidently firm believers in the beauty and infallibility of the Tall Bearded Iris, and I do not wonder that they are upset when someone writes an article ascribing to the TBs not one but several cardinal horticultural sins. Actually, I am very pleased with this reaction, and I invite the attention of all irisarians who are not afraid 'to call a spade, a spade' and do something about it.

Careful analysis of these letters reveals that while some folk were indignant that I should dare to say anything contrary to the popular view that the Tall Bearded Iris is a foolproof garden subject practically without faults, others felt that by my taking a position contrary to this view, such action on my part might result in loss of membership by the AIS.

The fact that anyone could have misunderstood my intent makes me realize that I did not choose my words carefully in what I said. So to clear this up, let me say the following.

The statements which I made in the article in question were meant to refer mainly to Middle Tennessee, and to this area only, although there were reports right there in the January issue from other areas which would seemingly substantiate my remarks. On pages 72-73 "Report of the Scientific Committee" Lee Lenz of California has this to say, "I hope that I have not overemphasized the disease situation, but during the past year I have heard numerous ominous remarks about individuals discontinuing the growing of irises because of their bad performance, part of it at least due to the ravages of disease—." On page 17, "We Need Disease Research," Homer Metcalf, Montana, notes, "There is almost certainly not a single irisarian whose plantings do not suffer rather regularly from some disease—." On pages 39-40, "Flight Lines," there is a report on rot from Mrs. Carl F. Volland, Zanesville, Ohio.

Now, if the Californians, say, have no leaf spot in their area, or if you have none in yours, let me pause to congratulate you. No one could be happier about this than I am. But that does not mean that we do not have leaf spot in this area and other areas where conditions are similar.

Believe me, Friends, I am in a much better position to report on this than are many others. Most irisarians, for the most part, come in contact with other irisarians, some of whom are dedicated specialists, and these

people are a race apart. I ought to know, for I am one of them. On the other hand, my contacts are mostly with gardeners in general. Who are they? Well, to me they are just flower-loving people who have no particular special interest. To them a flower is a flower, and a bush is a bush. In my editorial I called them "casual gardeners."

These so-called "casual gardeners" should be important people to us. Where we are numbered in the hundreds, they are numbered in the thousands, and it is from their group the AIS must draw its future members. If there is some condition developing which is causing the iris to become unpopular with such a large group of people, would I not be doing AIS members a positive disservice if I did not report it? And if I felt that I had found a way of remedying the trouble, would I not be failing in my duty towards the AIS if I failed to support it?

Middle Tennessee is a trading area immediately around Nashville. It extends to Bowling Green, Ky., on the north, to Florence, Ala., on the south, to the mountains in the east, and to the Tennessee river in the west. It contains something over a million people, and here is where I live and work. I watch this area like a hawk, horticulturally speaking, in my capacity as a nurseryman and as a "plant doctor" to a rather large T.V. audience, and last summer I received literally hundreds of letters from people all asking the same question—"What can I do about my iris foliage? It has turned brown from the tip to about half way down the leaf." To me this indicates that the trouble is widespread and worth reporting.

I made the statement that bearded iris are on the down grade as a landscape subject. This is a rather sweeping statement, but again I was speaking of this area where it is essentially true, not that there are not isolated landscape gardeners who use them extensively. I do myself, whenever and wherever I can. But certain things have set me to thinking. For instance, I have before me an issue of the "American Nurseryman," the official organ of the men who make gardens and plant homes. In it is listed every type of landscape material imaginable—trees, shrubs, bulbs, lilies, annuals, perennials—everything. But I do not find Bearded Iris listed even once.

This is the kind of thing I was talking about when I wrote the editorial. It seems to me, this is something we can't laugh off. It is not the fault of the iris. Far from it. The iris is one of the finest plants that grows. It is our fault, yours and mine and all the rest of the good people in the AIS who profess to believe in the iris and who are supposedly dedicated to its advancement in culture and dissemination. My point is, that we are falling down on *our* job, not the iris.

I hear by the grapevine that there is a movement on foot to purge me for heresy in the best Muscovite fashion. But before they get around to doing it let's consider the following facts: Geddes Douglas planted his first tall bearded iris in 1918, just forty years ago. He began growing them in earnest in 1929, twenty-nine years ago. By 1939, nineteen years

ago, he had several introductions on the market, all Tall Bearded. In 1949, nine years back, his chief interest was still the Tall Bearded and in the previous decade practically all the introductions were Tall Bearded.

As of this date, 1958, there are in my garden twice the number of Tall Bearded irises as there are of all other varieties combined. During this forty year period I have grown practically all types and kinds of irises. At the moment the "Lilliput" hybrids share equal billing with the Tall Bearded, but the one kind that has been of continuing interest with me is the Tall Bearded.

Let's carry this a little further. I do not believe there is a single person in the membership of the AIS who has made as many speeches to garden clubs and horticultural groups in an effort to promote the Tall Bearded irises as I have. Between the time of the beginning and the finishing of this article I have made two—one in Shreveport, La., and another in Madisonville, Ky. Again, each year for the past three years I have put on three full scale television programs devoted to Tall Bearded iris, one on culture, one on hybridizing, and one on its use in landscaping.

Again, let me repeat. When I made the statement in the last Bulletin that the Tall Bearded iris was passing out of the picture landscape-wise, I was not voicing my opinion alone. My opinion doesn't amount to anything. I was telling you what Mr. John Q. Public is saying. I sell plants of all kinds and every day draw plans designing plantings of various sorts. Invariably I include a few clumps of bearded iris in the planting. But more and more I am confronted with, "Mr. Douglas, what do you do with them when they get through blooming? Their foliage is so ugly. Let's use something else."

I know that what this person is talking about is leaf spot, for we have had a severe infestation of it in this territory for the past several years. And though I've been selling the AIS to the gardening public since 1934, I cannot continue to sell it against this kind of opposition unless I can offer such persons either a recognized cure for their iris troubles or at least a preventative program, scientifically proven; neither of which do we have at the present time.

While I am talking about this territory in and around Nashville, that does not mean that the infestation is confined to this area. From the reports that come in to me it seems that it is much more widespread. And remember this, if it can happen here, it can happen anywhere. It is a serious problem whether we like to face it or not and I firmly believe that a program of testing the new fungicides under scientifically controlled conditions is needed to solve it.

Rhizome rot is equally serious. It wrought *havoc* in several of the Canadian plantings the year of the convention in Hamilton? It was really a terrible thing, and remember the men who cared for those iris in the various public plantings were trained, professional horticulturists. Did you notice Bob Carney's back yard last year in Memphis? We all stood

around and blamed it on poor drainage, but do we *know* that? I have lost practically my whole iris planting three times in recent years from soft rot and my iris are planted on the side of a hill where drainage can't be a problem. We need to *know* about these things instead of having to guess.

From some of the letters that are going around, there seems to be a movement on foot to kill President Marion Walker's Scientific Research Program. Certain persons are trying to confuse the issue by taking certain statements which I made in my January editorial out of context and using these statements in a personal attack upon me, thereby obscuring the main issue.

I would like to bring this issue back into focus. The question is not what Geddes Douglas does or does not think about iris. That is beside the point. Further, the question is not whether iris in general are subject to pests and diseases. Everyone knows that the iris, just as any other flower, is subject to the ravages of certain diseases and pests. Even casual scrutiny of past issues of the Bulletin for the past twenty-five years will confirm this to be true.

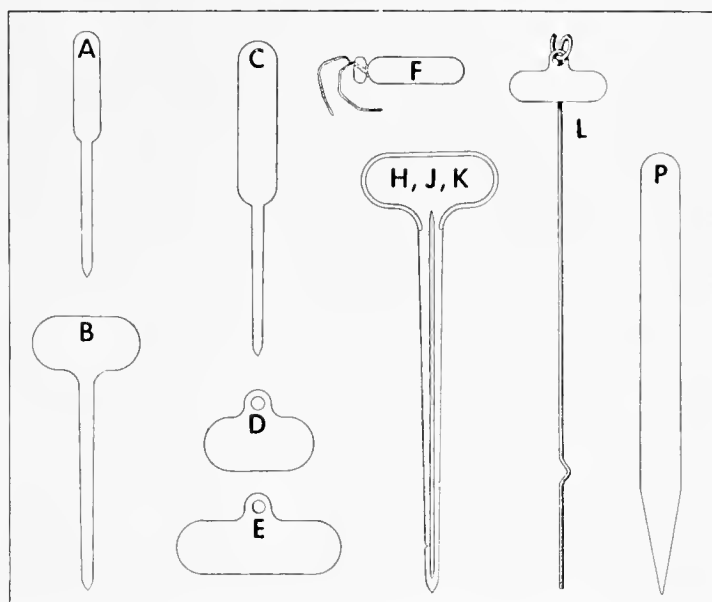
The question is, and I repeat, **THE QUESTION IS**—what are the members of the AIS going to do about it? I can tell you what one member of this Society is going to do about it. Below is a facsimile of my check to the AIS for \$25.00 for one Research Membership, and since I have paid my dues for 1958 this will be for 1959. It is my hope that the Scientific Committee will earmark this money—and other such contributions as a research fund for the investigation of the diseases of Tall Bearded Irises.

Further, if the Secretary of the Society will furnish me as Editor, a list of persons who wish to serve the Society in a like manner, I will publish this list in each succeeding Bulletin. I think it is high time for folks to stand up and be counted.

S. G. DOUGLAS & COMPANY MANUFACTURERS AGENTS		No. 6654
NASHVILLE, TENN.		March 20, 1958
PAY TO THE ORDER OF	American Iris Society	\$ 25.00
Twenty-five + no/100		DOLLARS
FOR Research Membership		
THIRD NATIONAL BANK IN NASHVILLE NASHVILLE, TENN.		E. G. DOUGLAS & CO.
87-4 640		Geddes Douglas

Lifetime Plastic Plant Markers

Here is a PLANT MARKER that we can recommend to all IRIS GROWERS. Permanent, will not rot, easy to read, easy to write on with ordinary soft lead pencil and it remains clear and plain even if covered with soil over winter. We have made the test and we know this to be true. The writing can be removed with scouring powder



and the label can be used over and over. Remains neat and clean and requires no painting. One of the things we like best is the saving in time required to prepare labels at planting time.

The tie-on tags are popular with those who wish to fashion their own steel stakes from heavy wire. They are most satisfactory and economical for hybridizing records as the writing always remains readable and the tags can be cleaned and used year after year.

We have added two new stakes this year: Style K for labeling display gardens and Style P for marking rows of nursery stock.

PLANT MARKERS MAKE WELCOME GIFTS FOR GARDENER FRIENDS POST PAID PRICES

	25	50	100	500
A—4½" Vertical Pot Stake		\$.75	\$ 1.25	\$ 5.50
B—2" x 5" Border Stake		2.00	2.75	11.00
C—6" Vertical Stake		1.50	2.25	10.00
D—2" Tie-on Tag		1.35	2.00	9.00
E—3" Tie-on Tag		1.60	2.40	10.50
F—2" Notched Tag75	1.25	5.00
H—2½" x 8" Tee Stake	\$1.75	3.00	5.00	21.00
J—3" x 12" Tee Stake	3.00	5.40	9.00	37.50
K—4½" x 18" Tee Stake	4.50	8.00	15.00	67.50
L—18" Galvanized Spring Steel Stake	2.00	4.00	7.00	30.00
P—1" x 12" Vertical Stake	2.25	4.00	7.00	26.00

Sample Assortment: 10 each of A, C, D, F and 5 each of B and H for \$1.00

Special Assortment: 1 each of E, H, J, K, L and P for \$.50.

Note: Price of steel stake does not include tag. Copper wires supplied with all tags.

Dealers and Garden Clubs write for Wholesale Prices

Gable Iris Gardens

2543 38th Avenue South, Minneapolis 6, Minnesota

IRIS • PEONY • DAYLILY CATALOG FREE ON REQUEST

Mary Ellen's Introductions for 1958

JADE QUEEN—sdlg. No. 1700H. (Pretty Quadroon X Maid of Cotton). A green iris with lovely form, good branching and excellent substance. Standards erect and nicely closed, Willow Green (Wilson's 00086 2/3). Falls same color with sea blue (Wilson's 04 3/3) around tip of beard. Nicely flaring form and wide. Hafts uranium green (Wilson's 6 3/2). Glistening silver dust over entire flower. Vigorous grower, good increaser. 36" Mid. to V. late. Net \$25.00

KAREN MOHR—sdlg. No. 1700q.q. (Lady Mohr X Lela Dixon). Mohr form plicata, white background, standards sprinkled blue violet. Falls stitched blue-violet, solid violet hafts. Outstanding violet style arms extending well out of standards. Thick lush brown beard. Rapid increaser, nicely branched. 34" Mid. to V. late. Net \$20.00

MISSION TRAILS—sdlg. No. 1778 (Spanish Peaks X Inca Chief). One of the most beautifully formed and heavy substanded blends we have seen. Standards pansy violet (Wilson's 033/3) closed and ruffled. Falls same color with a heliotrope (Wilson's 636/1) area around orange brown beard. Excellent branching, 38", Mid. to V. late. An elegant iris. NET \$25.00

WILD BLUE YONDER—sdlg. No. 1772 (Chivalry X Danube Waves). A quality blue self. (Wilson's 739/2) Moorish Blue. Heavy substance, ruffled and wavy. Standards slightly open, but strong midrib holds them erect until flower is spent. Flaring broad falls. Beard beautiful orange, becoming deeper in throat. Branching plus. 34", Mid. to V. late. Net \$25.00

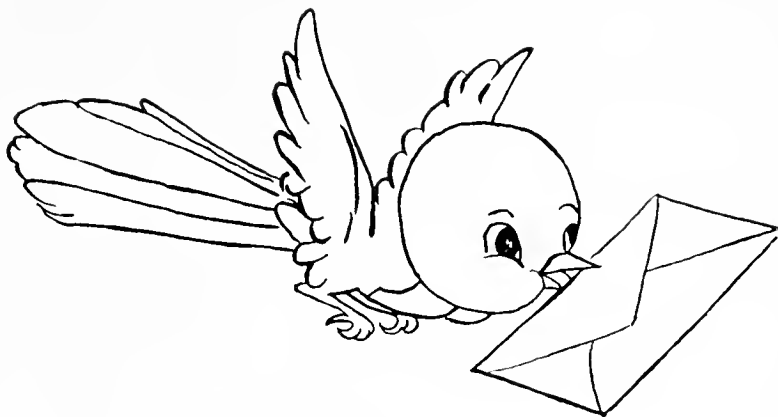
WOODMONT ROSE—A California native (beardless). Very dainty iris of creamy white with large signal patch of rich shade of fuchsia. Petals wavy. 14" M. This iris is named in memory of my very dear friend Rose Mitchell, who grew beautiful Pacific Coast natives in her lovely garden on Woodmont Avenue in Berkeley. Net \$30.00

KNOPF IRIS & HYBRIDIZING GARDEN

651 DRY CREEK ROAD • CAMPBELL, CALIFORNIA

FLIGHT

BY PEGGY BURKE GREY
NONA B MOTT

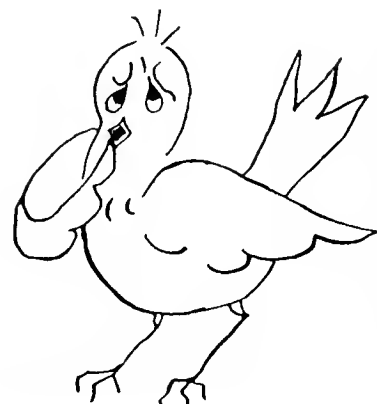


INES

ROBIN MEMBERS PLEASE NOTE ! ! !

If you have made application for a robin and haven't received one, don't be impatient! Our AIS Robin Program has had growing pains, it is true—BUT: our greatest problem is that robin members are not as prompt as the rules specify, and are not keeping their directors informed by Courtesy Card when they forward a robin to the next person on the route list.

DON'T SPOIL THE FUN FOR SOMEONE ELSE. PLAY ACCORDING TO THE RULES. DON'T HOLD THE ROBIN PAST THE TIME LIMIT! SEND YOUR DIRECTOR A COURTESY CARD WHEN YOU SEND THE ROBIN ON!!



Some Changes and Additions to the Robin Program

TALL BEARDED DIVISION: Mrs. Ray C. Palmer, Route 1, Box 382-A, Manchester, Missouri, is acting as Divisional Chairman, as well as Division Director, following the resignation of Clifford Benson due to press of other business. All applications for Tall Bearded Robins should go directly to Dorothy.

LILLIPUT DIVISION: Lots of changes here. A new name, STANDARD DWARF BEARDED following their new official AIS Classification; a new Divisional Chairman, Mrs. Zeh Dennis, Jr., 11 Meadow Rd., Chatham, New Jersey. Dorothy succeeds Bee Warburton in this capacity and she is also the new Chairman of the Median Society's SDB (Lilliput) Section. (Robins covering all four Median sections under the Medians-General Division remain under Bee's wing.)

SIBERIAN IRIS DIVISION: Sidney Dubose, Route 6, Box 424, Modesto, California is the Divisional Chairman. Ye olde editor forgot to write his name in the complete listing in the last Bulletin!

An Invitation to Join . . .

THE PLANT LIFE EXPERIMENTER'S ROBIN: To qualify for this group it will be necessary for each member to have some knowledge of chemistry, botany, floriculture, and to be working on some project related to plant life at the present time. Subjects covered by this group would include the effects on plants or seeds from light, ultra-sonic waves, chemicals or mixtures thereof, high frequency electricity, and electroculture. A study would be made of snails, slugs, and other pests, and our project would include a search of all technical publications for ideas covering plant growth, with a follow-up on such information. It would be expected that members of this robin do experimental work at home on the above-mentioned subjects, according to equipment available, and to give a report on the progress of each project in each robin flight.

If you would like to join such a robin and feel that you have the desired qualifications, please write to

Lloyd I. Showers, Director, P. O. Box 2044, Mesa, Arizona.

Space Available on International Flights:

Reservations for our foreign correspondents are now being booked on overseas flights. Many more robin members in all parts of the world are needed. Apply to the Price Travel Service, South Mountain Road, New City, New York.

Robins are now being formed for domestic and overseas flights on Bulbous Irises, and Bearded Species Irises. Members are needed to complete the route lists in these two groups. Apply to B. LeRoy Davidson, 905 Western Ave., Seattle 4, Wash.

Regional Robins Need Members:

With the exception of the northeastern Regions, there are still not enough applicants to start a Robin flying in every Region. Some Regions are being combined so that members won't have to wait so long before a robin reaches them. One includes people from both northern and southern California and Arizona; its Director, Mrs. George Roach, Sr., of Los Angeles calls it the Calizona. Eventually it will be divided into regional lines. We are in need of fledgelings west of the Mississippi River. Those who have not joined a Regional Robin are missing a lot of fun, a lot of information, and the chance to become acquainted with the iris people in their area.

Applicants should apply to their Regional Robin Director, or to Regional Divisional Chairman Mrs. Iris Smith, Box 124, Hitchcock, Oklahoma.

Some sad news traveled the robin routes this winter:

Dwarf Iris Robin #1 suffered a great loss in the death of Schuyler Sampson of Portland, Maine. His informative letters will be greatly missed; robin members hope that his wife, Alice, will rejoin their group soon.

Median Hybridizing Robin #3 was saddened by the passing of Mrs. W. J. (Irene) Cochrane, Westboro, Mass. Her close friend, Bee Warburton, reports that seed from Irene's crosses has been distributed to Median hybridizers all over the world, and many of her fine hybrid seedlings remain in the MIS Test Garden.

Spring Is Here!

Our campus is literally an iris garden in the springtime from the middle of April until the middle of May; nobody takes his classwork seriously; everybody is enjoying the iris. At commencement each graduate is given an iris rhizome. These are taken to practically every state in the Union and many go to foreign countries. This takes care of our surplus. A great many of our students have never seen an iris which has gotten out of the "old flag" class and are amazed at the rare things modern hybridizers have produced.—R. A. APPLETON, Peabody College, Nashville, Tenn.

Many things give the flowers an added attraction and fragrance is one of them. There is nothing sweeter than the fragrance of a large bed of pumila on a warm spring day!—HELEN DORiot, Goshen, Ind.

Perennial Planting Hints:

In perennial plantings flax is wonderful. I always keep some bergamont to entice the humming birds and, in late summer, they love scarlet sage.—MICKEY KIRBY, Norfolk, Va.

As low growing perennials in front of iris I like to use two spring blooming veronicas, rupestris, and incans. Newport Pink sweet william and flax are perfect with the lighter varieties and I'd have coral bells if only to attract the humming birds. Candytuft and various pinks I find are satisfactory. I experiment from year to year so that my borders are constantly changing. At the front of my beds I also use the Border iris LaNeige, Pink Ruffles, Rose Pearl, and sweet little blue TidBit.—ELIZABETH BERGIN, Dallas, Texas

pH and Color . . .

The pH of the soil has a lot to do with the expression of the intensity of blue. And colors vary from season to season depending on the amount of moisture and heat and sunlight.—IRENE VAN DE WATER, New Paltz, N.Y.

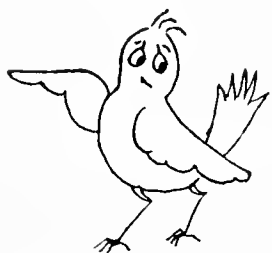
. . . pH and Soil Fertility

I'm a firm believer in soil testing to make sure the pH level is right for iris. I usually check the pH and then correct with lime put on with chlordane to kill iris borers. I govern the mix to suit the pH correction required and accomplish both jobs at one time. I have found this to be the best method yet for borers and surprisingly enough it keeps out the moles which are sometimes a nuisance in this area. Generally I start with the first lush growth in the spring and give the plants and ground a good dusting; about one more good shot right after bloom seems to do the job for the year.

In my beds I always turn down a lot of compost, wood chips, and commercial fertilizer (0-20-20); I use bone meal under the individual rhizome, and then put the nitrogen on the surface in a circle around the plants, making sure I stay away from the rhizome itself. I use ammonium sulphate. I believe the nitrogen-handling is very important in that the plants should be given a shot in the arm a couple or three weeks before blooming, and again as they are coming out of the dormancy period. The latter is rather tricky since I have found that under our severe freezing and thawing conditions with the accompanying heaving problem, you want lots of roots but not too much top growth going into the winter.—LEE EBERHARDT, Springfield, Ohio

Bone meal is calcium phosphate, very slow, and will give off 2.47 nitrogen in its decomposition. Super phosphate is an acid phosphate and gypsum another phosphate. Using too much phosphate, it seems to me, will tend to get your soil out of balance.

If you get a text on "Nature and Properties of Soil" you will find that phosphate, nitrogen, and potassium are dependent one on the other to form a colloidal and become available plant food. Of course, moisture is the key to this. If your pH factor is low, these elements will be tied up and suspended and cannot become available plant food. A pH of 6 to 7 is necessary for good iris growth; I mean by that making good blooming-sized rhizomes and when you get this so will you get good increase. I preach soil tests. It pays off.



Here the pH rate is about 4.6 to 5 and 5.5, so I use about one ton to an acre every two years of dolomitic lime, to bring my pH to 6-6.5. This is also high in magnesium (your fourth essential element) and about every three or four years I add trace elements.

Sheep manure or barnyard manure that is well rotted should go into the soil in preparation as a soil conditioner as the plant food from it is low but readily available.

Here is what I do: lime on top, spade in, throw back four to six inches of the top soil and work lots of barnyard manure into the bed; then a good application of bone meal over that, rake back the top soil and mix some more bone meal into it; this lets you set your rhizome with two or three inches of soil between it and the rhizome. If your soil is on the poor side, dress on top, scratching in a small amount of Golden Vigoro. I know some of you will say this is nuts, that it is made for grass. (It is made for grass, and I won't admit to being nuts even if it is true.) Golden Vigoro is 6-10-4 and the nitrogen is ammonium sulphate which is slowly released; as you all know, too much nitrogen in contact with the rhizome will cause soft rot. It works well for me and where used will give eight to twelve inches taller stems and a more vigorous plant. I use it in October and the last of February, as they make their move here in March.—HARRY HIPPEL, Calhoun, La.

Wallace Iris Gardens

417 SOUTH STATE • OREM, UTAH • P. O. BOX 426

Introductions for 1958

BLUE LACE: The nearest blue self with heavy lacing. Has some orchid infusion with light gold brushing in haft. A large vigorous plant.

Seedling #56-528-1 (Chivalry X Blue Debut)NET \$25.00

CLOUD LACE: A large grey-blue self with heavy lacing. Here is a lovely tailored flower with that extra garden appeal. Quality, ruffling, and vigor comes from its great parent Cloud Castle.

Seedling #56-486-1 (Cloud Castle X Blue Debut)NET \$25.00

CHEROKEE ROSE: Sensational new orchid and rose iris from pink breeding. Has large flared flowers with exceptional quality. Makes fine exhibition clumps. Its large vigorous fans are semi-winter evergreen. Foliage does not dry down in the mountain area during the dry summers. Shows tendency for marked disease resistance.

Seedling #56-111 (Ballerina X (Pink Formal X Heritage)) H.C. Award in 1957
.....NET \$25.00

DOLL LACE: As the name implies is a beautiful baby ribbon pink finished in lovely whorls of lace. A charming plant for the unusual garden. Flared with heavy substance.

Seedling #56-145 (Cathedral Bells X Dolly Varden)NET \$20.00

GRACIOUS HELEN: A vivacious deep chrome yellow with whorls of ruffling and lace with a white signal. Tailored flowers are born on heavy well-branched stocks. Finest quality in the laced yellow class. Plants are vigorous.

Seedling #56-91-1 (Seedling 5213 (Snowqualmie X Gold Ruffles) X (Laced Midwest Gem Seedling X Hall's 42-10)) X Seedling 48-119 (Deep butter yellow) NET \$35.00

GREEN ECHOES: The darkest of the yellow chartreuse selfs. A derivative from our laced pink and yellow breeding lines, which carries the heavy fluted character. The flowers are tailored and flared with leathery substance and ruffling. Shows exceptional vigor and resistance to disease.

Seedling #55-181-1 (Seedling #48-48 (Morocco Rose X (Golden Eagle X SQ 72) X Muhl. Seedling 46-48) X Sdlg. 4951 (Pink)NET \$25.00

ORIENTAL TAPESTRY: A Brilliant yellow gold plicata stitched in brown. One of the brightest garden subjects in its class.

Seedling #56-395-4 (Tiffanja Sdlg. X Self) NET \$15.00

TOM HOWARD: A very bright red self from a new line of reds. Free branching and a free bloomer approaching a cardinal red. Tailored and smoothly finished.

Seedling #55-412-; (Captain Wells X Pink Formal)NET \$15.00

Iris Bred for Quality and Disease Resistance

HOME of THE NEW RUFFLED & LACED IRIS

Terms—Cash with orders. Price list on request.

VORIS IRIS GARDENS

announces its 1958 Introductions

Net

C. G. VORIS	—Golden blond with Mother-of-Pearl shadings. Same corrugated form as Whirlaway	\$25.00
MY FAIR LADY	—One of the largest in soft orchid	12.50
MOONLIGHT MELODY	—A soft yellow of unusual carrying power	10.00
<i>Attracting good attention and comment of 1957 viewers are:</i>		
ICE CAVERN	—The well-named blue white with pure blue beard of deeper shade	22.50
WHIRLAWAY	—Yellow with horizontal corrugated falls. Good size and multiplication	10.00
SABRINA FAIR	—Yellow self with dainty lace-trimming	12.00
MORNING FLUSH	—T-beard pink with the tangerine flush in the falls	10.00
ICE CANYON	—Pure amoena with light blue falls	8.00
FOREST MAID	—Navy blue with Black Forest beard	12.50
JIMBO	—Large formal russet with Mother-of-Pearl shading	5.00

ALL ARE SURVIVALS OF A RIGOROUS WINTER SWAMP CONDITION,
AND APPARENTLY ARE RESISTANT TO CROWN ROT.

CHARLES WILLIAM VORIS, Proprietor

VORIS IRIS GARDENS

R.D. #2 • WATSONTOWN, PA.

(two doors off route 14 enroute to Syracuse)

ANNOUNCING ANOTHER OUTSTANDING INTRODUCTION FROM THE ORIGINATORS OF BABY'S BONNET

(O. T. and Clara Baker)

WAYWARD WIND (H.C. 1957)

(Sylvia Murray X Rocket) X Cordovan

All who have seen and admired this iris agree that there is none other of this coloring. Best described as having the warm coloring of burnished antique bronze with a very slight infusion of chartreuse. A true self even to the beard. Excellent tailored form, heavy substance, tightly domed standards and flaring falls, prolific bloomer. Truly a distinguished flower. \$20.00

BABY'S BONNET (H.M. 1957)

The first pink amoena. Still in short supply \$20.00

CO-INTRODUCED BY

BAKERS ACRE

(Originator)

7650 WEST 4TH AVE.

DENVER 15, COLORADO

LONGS GARDENS

BOULDER, COLORADO

Super Phosphate

I use barnyard manure when I can get it well rotted; Barnyard gold it really is, as it is so very expensive and hard to find, but it does give the soil a good composition, enabling it to hold more moisture and not packing as hard as it would otherwise. I use lots of compost also but my *pet* is a mixture of equal parts of gypsum and super phosphate. After mixing these two materials together I stir it into the soil under the plants as I set them out. Then water, and your mixture dissolves, becoming readily available to give newly set plants a quick start. I use this mixture quite generously as it will not burn and will not leach out. And what is not used up this year will be available next year. It has a tendency to release the potash in our soil that is not available, as well as other minor elements that are not available in our alluvial soil. It also counteracts both the black and the white alkali that we have in this valley. You can use it on your tiniest seedlings as it will not burn their roots. It produces finer roots, flowers and fruits without growing them into tall leggy plants. You can use it on all plants; just try it on your peonies! I am sold on it and always recommend it in garden talks I often give to garden clubs in our district. Do get a few pounds and try it!—ALICE KEEN, Walla Walla, Wash.

Plant Food Problem



I find a lot of confusion and guesswork as to the amount and kind of plant food necessary to do a good job on iris. If the AIS would officially find out approximately the amount and kind of nitrogen, phosphorus, and potash, and a few of the major trace elements necessary for iris, then a simple soil test, made from your own soil testing kit or done by your local County Extension agent, would pretty well lick the

plant food problem.

Most of us seem to be able to take care of the soil texture, lack of humus, and so forth. From my own experience I am inclined to think that iris need very little nitrogen, but larger percentages of phosphorus and potash, and for that reason I use a commercial 3-12-6 in preference to a 5-10-5. Our local limestone in western Pennsylvania is 99 percent or better calcium carbonate, so about every third or fourth year when liming, I use Ohio limestone or dolomite, about 38 percent magnesium carbonate.—PAUL W. WEHRLE, Punxsutawney, Pa.

Soil Conditions and Correction

One thing stands out in much I have read and that is, with most gardeners if a teaspoonful of fertilizer is recommended, a handful will really make things grow. This, I believe, is the reason the AIS and most commercial growers suggest bone meal for iris. It is safe and a heavy application will not cause trouble. You will get good average results. However, the iris are actually heavy feeders and more complete fertilizing is necessary for maximum results.

Two years ago my tall bearded iris were weak in growth, full of rot, and the stalks on many were hardly more than knee-high. I bought a soil testing kit and found a complete lack of phosphorus, about half the required potash and a fair amount of nitrogen. Then I began to read and ask questions like mad. I added first enough super phosphate 19 percent to bring that element to normal in my soil, after which I added a 5-10-5 fertilizer which should be good for iris; it is a standard formula for potatoes. A good application of lime a few months later completed the treatment, and the results have been amazing.

Phosphorus controls hardiness, strength of stem, flowering, and fruiting all to a large degree, so it isn't difficult to see why it is a must. I'm going to add one more product on a trial basis: Es-Min-El (short for Essential Mineral Elements), a compound of trace elements such as boron, iron, magnesium, and so forth. This costs about \$13 per hundred, and a hundred pounds will do an acre; one teaspoonful per clump if you want it broken down.—BENNETT C. JONES, Portland, Ore.

Our southern soil is poor so we have to fertilize all plants quite heavily to get good bloom. The following mixture was passed on to me by one of our most successful iris growers: to one wheel-barrow of humus add four coffee cans of bone meal, four cans of gypsum, four cans of sheep manure, four cans of super phosphate, one can of Vigoro. Mix thoroughly and sprinkle a pint around each plant, then rake it in lightly. I add this in the fall and spring. In fall, if I do not do this by the end of August, I leave out the super phosphate and Vigoro.—MRS. CORRIN LOWREY, Atlanta, Ga.

I think each grower must learn to handle his own soil, as some soils are more retentive of fertilizer than others. In areas of less rainfall than ours there would be less leaching, of course. But iris are good feeders. Dig a clump of iris and note the many long roots. They are all after food.—BENNETT JONES, Ore.

Milk for Fertilizer, Growth Stimulation

Dried milk used as fertilizer seems to make the iris grow better. It also seems to give them something they need to make them set seed better, with more seed per pod—something every hybridizer wants! —ROY MILES, Okla.

Some friends fed their newly set iris heartily with milk. Foliage was much denser and almost twice as high with three to fourteen increases on each plant. Don't use too much milk or rot may start, unless you use aureomycin along with the milk to prevent this.—RALPH LEWIS, N.C.

Two years ago I used milk feeding on half the seedlings when I lined them out. By fall there was no comparison between them and the untreated ones. Those treated were so much bigger, with much more increase. This year I used it on all of them, once at the time they were lined out and again three weeks later. Still another treatment was given not too late in August and another in October. I used a solution of two gallons of water to each quart of skim milk. If you use dried

milk, dissolve one pound of milk in five quarts of water.—MRS. EARL EVANS, Idaho.

Anti-biotics

To stimulate growth I tried B-complex (#1, 6 and 12) with 20 parts per million of penicillin. Wow! What rhizomes! They weighed fourteen to twenty ounces each, and simply bristled with increase! To compute penicillin G: 1670 units weigh one gram; use one gram to 20 grams of water. Penicillin G will increase plant growth by 530 percent and you can buy five million units from a veterinary supply house for around two dollars.

Aureomycin is very, very good to prevent soft rot. It kills the harmful soil organisms without which rot cannot occur. Both it and terramycin will do the work. There seems to be no danger of getting them strong enough to harm the iris. Aureomycin is the better, both for price and effects. It has a growth-factor of some kind that makes huge rhizomes with lots of increase, that do not rot easily, which is lacking in terramycin.

Too much streptomycin is toxic to plants, and neither it nor its forms, such as Agrimycin, seem to have much effect against soft rot. Both aureomycin and terramycin have some not-as-yet understood chelating action, thought to be due to a drug breakdown which makes them especially suitable to use in soils where chlorosis is a problem.—EDITH COFFEY, Wash.

Virus Mosaic

The virus mosaic is our greatest problem in growing dwarfs.

When a tall bearded variety shows purple streaks in the flower, many people say, "Oh, that is caused by the cold and damp weather" and think no more about it. They are half-right; the purple streaking shows most in bad weather, while in nice warm sunshiny weather it may not show even though the plant is infected. I find that just as many tall have mosaic as the dwarfs. Because the dwarfs bloom early while the weather is bad they show the effect more, whereas the tall bloom later when the weather is warm and clearer so that they only occasionally show streaking in the flower. But it is plainly obvious if you look at the leaves in the spring; the cell structure is destroyed and lighter patches of a transparent nature appear.

Mosaic not only mars the beauty of the flower; it affects the vitality of the plant, often causing it to grow on shorter than normal stems and hindering the growth and increase. There is no cure for it and practically all of the older dwarf varieties have become infected; if you keep any of these around it will eventually spread to your mosaic-free varieties. It is carried by aphids and I suspect ants, as well as various other ground insects and worms; it can be spread by tools.



I have solved the problem for my own purpose by quarantine methods; all newly selected seedlings are planted away from all infected plants; for the third year now they have remained clean. So if you get some variety which apparently does not come up to its reported quality, look for mosaic and see if that is not the reason.—WALTER WELCH, Ind.

Disease Resistance

First generation hybrids of imbricata almost always show a poor growth pattern, with straggly fans and leaf spot. Hence, before imbricata is used too much we must develop a strong clone, either pure imbricata or a hybrid of imbricata and other species. I wonder how (pallida x imbricata) x imbricata would do in this respect. Pallida's best characteristic is its disease resistant quality, which seems to be dominant. Some good things have been obtained by this method. Perhaps breeding back to pallida every three or four generations would solve the problem for most weak species.—PAUL ANTRIM, Ind.

Leaf Spot

For leaf spot, this works for me. Dust the plants with fermate as soon as they start to grow in the spring. Keep this up all through the wet season into early summer. This can be used along with DDT. Leaf spot, like black spot, is easier to control before it starts than after it has had a chance to develop.—HELEN DORIOT, Ind.

I control fungus with a good sharp knife. Starting February 1st I spray weekly with Dithane Z 78 (wetable) and spreader, it is far better than fermate or bordeaux, and is fine all summer long on rosea as it doesn't burn the foliage in high temperatures. Carco-X is good used in July and August for mustard seed fungus. A Captan solution of standard strength is also good both for mustard seed fungus and leaf spot. I add one tablespoon of detergent per gallon as a spreader so it won't run off.—HARRY HIPPI, La.

Pest Department

If you're bothered with aphids or spider mites, use Selenium, three parts per million, in the soil. This is fatal to them. For slugs I just sprinkle coal ashes along the rhizomes or along the seedling row.—RICHARD RUSSELL.



Slugs were terrible. Many things were eaten while I was away from home. I put out poison and the kill was terrific. I used Bait-M, Bugetta, and Snarol. The latter was much the best. I put it out in the evening in little piles here and there. Next morning the ground around them was sprinkled with dead slugs. The ground has to be wet for best results. Slugs are hard on iris. They chew at the bases of the fans and rot soon sets in.—IRENE McCULLOCH, Minn.

Right here I want to put in a plug for 10 percent wettable chlordane. I keep the ground around the rhizomes sprinkled with it to control insects, slugs, snails, and so forth.—MRS. R. H. LASCHINGER, Gilmer, Texas.

PROUDLY ANNOUNCING OUR 1958 INTRODUCTIONS

BRIGHT STRALIGHT (Beattie '58) (B. 50-61-1 X Mattie Gates) \$25.00

This lemon plicata recessive has been one of the delights of our breeding work along these lines. Tightly held and swirled standards of soft lemon-cream. Flaring falls of ivory-cream-bordered lemon with smooth intensification of color at the haft. 32 inches tall and well-branched. Very heat tolerant.

GAVOTTE (Beattie '58) (Tell 44-67 X Frances Kent) \$20.00

I find myself "hard-put" for words to describe this distinct and different iris. Its domed standards are of soft lemon flushed pink, intensified at the ribs. The falls are lemon apricot with a smooth blending of amber at the haft. An orange beard highlights the center of the flower. One of my personal favorites and a fine parent.

YANKEE CLIPPER (Beattie '58) (Mexico X Moontide) \$15.00

Like its namesake the beautiful sailing ships; this iris is tall, elegant and sturdy enough to stand all type of weather, fair or foul. Heavily ruffled, domed standards of soft chamois brown. Extra wide, ruffled falls of pale lilac with a blended border of chamois brown. Heavy orange beard. One of the most admired seedling at our 1957 Portland Iris Society Show. 38 inches.

Our New Dwarf Bearded Introductions

TEAR DROPS (Beattie '58) (Welch G508 X Primus) \$3.00

This intriguing iris of perfect dwarf proportions has light Dresden Yellow standards and horizontal fall of Citron Green bordered yellow. Fuzzy white beard. Early 4 inches.

LITTLE BLACKSMITH (Jones '58) \$3.00

For our first co-introduction from the Jones seedling beds, Bennett has chosen this deep red-black that has appealed to all who have seen it. The standards are deepest oxblood, the falls nothing but black, the beard orange. A richly colored flower reminiscent of the red-blacks found in oriental rugs. 10 inches.

OLD COLONY GARDENS

ROUTE #3, BOX 535 • CANBY, OREGON

LIST ON REQUEST. VISITORS WELCOME.

1958 INTRODUCTIONS

Bearded Iris

GOLDEN ANNIVERSARY (M. R. Walker '58) \$25.00

Greatly admired at the AIS Convention, in Mr. Walker's garden. Canary yellow standards; Bridal satin falls, with wedding ring gold band.

MAGIC HALO (G. W. Coppedge '58) \$30.00

Subtle fascinating artistic blend. Rosy orchid heart, shading to pearl-gray at edges, overlaid soft metallic gold, creating a halo illusion. 36".

MALVA LACE (D. Lyon '58) \$20.00

Intriguing pattern of bubbles and lace, pequot-edged. Delectable shades of mauve and orchid. Flowers large, and broad in petals. 38".

SUN JEWEL (G. W. Coppedge '58) \$20.00

A glistening metallic gold overlay on large canary-yellow flowers. Exceptional.

TANGELO (D. Lyon '58) \$15.00

Blended nasturtium-orange and apricot on satin textured large flowers. 40".

Spuria Iris

EL CAMINO (M. R. Walker '58) \$15.00

Deep orange-yellow self of unusual form for a spuria, lending distinction.

GAY LARK (M. R. Walker '58) \$15.00

Soft white standards; deep orange-yellow falls. Brilliant and ruffled.

For further descriptive information on the above, and many of the best of the recent introductions, write for our 1958 catalogue, FREE to AIS Members.

LYON IRIS GARDENS

7041-R WOODMAN AVENUE

VAN NUYS, CALIFORNIA

Visit IRISLAND, when in Southern California

SCHORTMAN'S IRIS GARDENS

1221 W. PUTNAM AVENUE • PORTERVILLE, CALIFORNIA

Sierra Skies AM '56	\$ 8.00	Gracious	\$25.00
Patience HM '56	10.00	Blue Freckles	12.00
Memphis Lass HC '56	25.00	Violet Ruffles	25.00
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INTRODUCING FOR '58

LEROY L.—E; Hgt. 40" (Black Hills & Cloudcap) Collectors Masterpiece. Huge Black Self including beard. This big slightly ruffled black was greatly admired in our garden, thus introduced by public demand. Scarce. NET \$25.00

SHARON ANN—M; Hgt. 38" (Pink Formal & Pink sdlg.) Luscious clear and immaculate deep flamingo Pink. Large flaring. Crowd Stopper, a must. \$15.00

LINDA ROSE—E; Hgt. 38" Picture this beautiful Lacy ruffled deep flamingo Pink with a flaming red beard. So red, from a distance you will think it is on fire. Fast increaser, very floriferous and prolific. \$7.50

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IRIS INTRODUCTIONS FOR 1958

"MARY WAIS"—(J. Gatty '58) VL Hgt. 36" (Extravaganza x Red Torch) \$20.00

Certificate of Commendation 1957.

A lovely bitone which presents a new color note to the late iris garden picture. The tightly held and ruffled standards of chinese-violet are complimented by the rich and velvet textured flaring red-black falls. An iris without a haft mark to mar its finish.

Co-Introducing with "Tell's Iris Gardens," Provo, Utah

High Commendation 1957.

"SAINT JUDE"—(J. Gatty '58) ML Hgt. 37" \$20.00
(Sky Song x Granny Sherman)

A serene and exquisite light blue. The smooth and heavy-substanced blossoms are produced in abundance atop sturdy and well-branched stalks. The standards are well domed and firmly held while the wide semi-flaring falls of smooth coloring are lightly ruffled. A most prolific variety and a worthy addition to the light blue class.

JOSEPH GATTY

225 GRIFFITH ST. • JERSEY CITY 7, N.J.

I've read of a number of ways to deal with ants. Carbon bisulfide (High Life) is reported to be 100 per cent effective. Pour some of it down the ant hole, after enlarging it with a stick. Place a rock, brick, or board to cover the opening entirely and to drive the fumes down. This is best done in the late evening or whenever the ants seem to be "at home." Don't ever light the stuff!! It is highly inflammable so keep it in the open. Cyanogas also seems good applied in the same way. This is dangerous to use; care must be taken not to breathe the fumes or allow any to get on the hands. For small ants in the edges of borders or old stumps I just use chlordane.—CORR SMITH Palestine, Texas.

Madelaine Furze, Trumbull, Conn., has a formula for borers: One tablespoon of Lysol to one gallon of water for April spraying.

A Lot of Rot

I tried to transplant active bacterial rot to healthy plants but they just wouldn't rot. If they had some sort of wound, even a minute one, such as a cut, scratch or pin prick, it was enough for rot to start.—EDITH COFFEY, Wash.

When rot attacks a rhizome, dig and soak it in a Semesan solution—one ounce to one gallon of water.—MRS. KNUDT O. SEIM, Melbourne, Iowa.

We have had so much rain and humid weather that the first thing we had to combat was rhizome rot. I took care of that by digging out all of the soft places and washing them with a solution of potassium permanganate.—MRS. V. E. TEETER, Louisville, Ky.

Last year I lost two brand new introductions to soft crown rot. I got some Agrimycin which did not save them. There is an excellent article in the Region 11 Bulletin, 1957, in which it is shown by individuals and the manufacturer why Agrimycin does not clear up the rot in iris. Aureomycin by another manufacturer does clear it up and the reasons are explained. Get the vet's quality of the latter product and use it at the rate of two tablespoons per gallon of water.—BENNETT JONES, Portland, Ore.

Talk about wonder drugs! Without captan I am sure I would have lost dozens of small plants; without aureomycin probably hundreds of rhizomes would have rotted in my constantly wet ground. These two are lifesavers for iris, make no mistake. In the summer of 1956 I poured a solution of aureomycin, at the rate of two tablespoons per gallon of water, around iris in a large planting where the ground remained constantly wet from early July until April. Not one case of rot developed. In late October that year I poured a captan solution of two tablespoons of Orthocide (which is 50 percent captan) to a gallon of water over rhizomes and fans of all smaller clumps to prevent botrytis rot. In mid-March, as soon as the ground was dry enough to walk on, I repeated the use of this solution, adding two tablespoons of aureomycin to each gallon; I was preparing for either a cold wet spring and dry rot, or a warm rainy one and wet rot. Losses were cut

fully 97 percent from the previous year. The plantings were large and healthy with lots of increase.—WILMA VALLETTE, Idaho.

I discovered rot in two of my dwarf plants and I gave each a heavy handful of gypsum without even scraping the rot away. Today those clumps are as sound as can be. At the same time I dusted the rhizome of every iris on the place with it and I cannot find a trace of rot anywhere. Perhaps it was adequate fertilizer that gave the plants the strength to resist rot; I don't know, but I'll keep gypsum on hand anyway.—BENNETT JONES, Ore.

For the Hybridizer's Scrapbook



From England, Georgie McWilliams sends a suggestion: Have you tried drying your wet pollen indoors overnight before using? I have done this in rainy weather and placed polyethylene bags over the crosses for a few hours. This has proved successful.

I've heard the theory that if you put too much pollen on the stigma you may get no takes at all, where a small amount of pollen would produce seed. Idea is, each pollen grain grabs off some of the fluid to lubricate its trip down the style arm and if there are too many grains grabbing their share no one share is large enough to get a grain down to the ovary.—PEG EDWARDS, Long Island, N.Y.

We harvested over a hundred pods this year, mostly blues and reds and a few amoenas. When we left on vacation our iris had not bloomed out completely. Many crosses were just starting to set pods. In the home garden I took the precaution of pulling down all the spathes around the forming pods so that water could not collect there. I did not have time to do this in the seedling patch. There were heavy rains while we were away. When we got home the pods in the home garden were huge. Most of those in the seedling field had dropped off.—DORA WALL, Wichita, Kan.

I found that Fruitone applied to the junction of pod and stalk reduces loss of pods due to wet-rot and wind.—CAROL DAMOTH, Mich.

Sometimes things that don't set seed well can be persuaded to do so. Moisten the stigmatic lip with fruiting hormone such as Fruitone or Blossom-Set. It won't make a plant set seed that is genetically unable to do so. But if the inability is only due to a lack of the growth hormone on the stigmas, or to its having become dry, this method will often get results. In fact, if it is only slightly dry and the pollen is still in good condition, a little water applied with a small brush or perfume atomizer will often be enough. Quite often opening a bud by hand from one to three hours ahead of time, and pollinating all three stigmas, will give takes on difficult podders like Ranger, White Satin, or Mohrs.—WILMA VALLETTE, Idaho.

Seed Planting, Treatment, Germination

Plant seeds even though they don't look good; you just can't tell by the looks of it whether it has an embryo or not.—EARL ROBERTS, Ind.

I find a light, very rich soil is best to cover iris seed, such as not quite decomposed compost, sewage sludge, or a little powdered milk mixed in with the soil. These last two seem to act on the hard shell of the seed and let in the moisture, which makes better germination; acid in them, perhaps? Any of them give better germination for me than just covering with plain dirt or sand.—JOHN OHL, KAN.

I am hoping for better germination than I usually get. Dwarfs, medians, and tall started to put up miniature fans the last week in October. The seed were planted directly from the pod which was picked as it first started to split, thus the seeds were plump and a light brown color when they went into the ground. Once before I tried this method, but in cans, and got no startling results. Perhaps better results will come from planting them directly into the ground—BEN HAGER, Modesto, Calif.

Sissie Meeson, England, likes to sow the seed as it ripens to get it safely out of the way. "This year I was not able to manage that. I do most of my TB sowing in the open garden, in drills, with sand and leaf-mold or vermiculite. I never find it makes much difference which I use. The dwarfs I sow in pots."

I received some onco seeds from Israel and the sender recommended that they be planted at once. He says I just may have a very few seedlings the first spring, but to let the seedpans dry thoroughly during the summer, water again in the fall, and I should get almost 100 percent germination in the spring of '59. I wonder if we could treat all iris seeds in this manner and avoid having a good percentage of the slow ones rot during the first summer in the soil?—GINNIE MELNICK, N.Y.

Last fall I soaked twelve Snow Flurry seed in a solution of concentrated sulphuric acid for an hour to soften the hard shell, and planted them in the open. Eleven germinated. Of twelve others, soaked one and a half hours, only three germinated. Now I want to try it for half an hour to see what gives. It works on other hard-shelled seed so why not iris?—HARRY HIPPEL, La.

I experimented soaking half of my iris seeds in a strong Gibrel solution, the other half I left plain. Only seedlings up are the ones soaked in the solution first.—MRS. VICTOR R. ERWIN, Levittown, Pa.

Of all the seeds I planted last winter and spring, the *only* germination came from one of the refrigerated batches. This was as of August '57.—PEG EDWARDS, N.Y.

For germination I prefer the refrigeration method. It gave the highest percentage of germination and faster growth. However, I added .02 percent naphthylacetamide and .01 percent of Vitamin B1 to the moistening agent. Seed were planted in one and a half inch deep pans filled with a mixture of steril milled sphagnum moss and vermiculite. I then wrapped the pans in Saran-wrap to conserve moisture. This eliminated all unnecessary handling. The pans can be transferred directly to the seedling plot. Ferto-pots might be even better.—CAROL DAMOTH, Mich.

Mrs. Paul Frank Boon, Birmingham, Alabama, suggests using foil to wrap seeds as they are shelled, then storing in the refrigerator until you wish to plant. Seeds thus stored have been found to be as fresh seed with no dormancy having set in after two and a half months. Germination seems very good.

The first of my 1957 crop of seeds were up the last of October about an inch in flower pots in the house. They were stored in the refrigerator since they were gathered. The pods were not allowed to become hard and dried out but picked when the seeds were showing color. Seeds are shelled out, rolled in bundles in a labelled piece of paper and stored in jars. I have used Plenodrench, a preparation designed to use on seedlings to stop damping off, to wet the bundles. Seeds will germinate in jars in the refrigerator if moistened.—CLARA JORDAN, Oak Ridge, Tenn.

I tried "refrigerated stratification," sterilizing seed for an hour in equal parts of boiled water and Chlorox, rinsing, then soaking for two days in boiled water, changing it the second day. I found that in cheesecloth folds the roots grow into the cloth and are easily broken, so I use the small clear plastic containers that hold bouillon cubes, with a little moist peatmoss. You can see when the seed have sprouted and need not disturb them till planting time. I get excellent germination and save a lot of time as they need no attention during the whole refrigeration time. Forty degrees is fine, in the vegetable crisper. You can set the babies directly out, or in flats if there is danger of frost. They really take hold and shoot up in short order with no setback from transplanting. I got from fifty to one hundred percent germination within a few weeks' time.—RON BARNETT, Calif.

I treated seed something like the rag-doll method. I took about half my seeds when ripe, tore old sheets into strips, dampened them, put the seeds on them, and rolled them up. I set them in the refrigerator for about three weeks, not to freeze, of course, as the seeds were fresh and freezing kills fresh seed. I then planted them in gallon cans of light soil, keeping them moist. By late January they were sprouting. The half that were not treated did not begin to sprout until two months later. By May eighty percent of the treated ones were up, with less than half that many of the untreated ones showing.—RALPH GEYER, Los Altos, Calif.

Labelling Crosses

I have a new method of labelling crosses. It takes a long time to make out tags, particularly on a cold wintry day, and they become illegible after weathering. The dwarfs were terrible. Rain and mud covered the tags. Extra quality tags stood up but the cost of them when I was making a cross on twenty or thirty flowers hoping for one pod was too much. Every time I tried to cut down on the work I had mix-ups. The telephone company uses a cable containing eight different colored wires, bright colors, plastic covered, quite thin and flexible,

about like plant twist-'ems. I cut some of these into four inch lengths and now have the best markers I have seen. I write all the pod parents I intend to use in my notebook leaving plenty of space. Then with my wires and pollen boxes I start pollinating. All crosses with the same pollen will have the same color of wire, and I note in the book opposite the pod variety the pollen used and the color of wire. I can make a number of crosses with one notation, and I can make eight different crosses on one pod parent, or more by using double wires, such as red and white, red and blue, and so forth. Since some crosses were made twenty times I save quite a lot of time.

This is wonderful for selfing varieties. I kept one color for all self crosses. Any variety with a blue wire was positively identified as a self cross, and only one notation was necessary. They are very fast to label. Just twist the wire below the ovary.—JACK GOETT, Conn.

Marking Labels

Grace Guenther, Iowa, uses a Chemirac pen.

China, glass, and metal pencils on metal labels make quite permanent pedigree seedling records. For marking leaves in the garden, one man I know snitches his wife's eyebrow pencil and those marks, if made on a growing leaf, will last through the winter.—CRESCENT DERU, Ogden, Utah.

Our friends think we are ready for the lunatic asylum at times. One said our markers look like tombstones and I replied, "Oh, indeed! A lovely friend lies there!"—MICKEY KIRBY, Va.

Take a Gallon Jug . . .

Here is the tale of the jugs. I have a large pail of cold water handy when I take a heavy piece of cord string and dip it in kerosene. I tie it tightly about an inch from the bottom of the glass jug, taking off the screw top or cork before lighting the string. When the string has burned entirely around the jug I plunge it in the cold water and the bottom drops off, making a glass jar without top or bottom. After washing it carefully to get any kerosene off, the jug is ready to use. While the hole in the top is not very large, it does leave room for a little air circulation. In other words, this makes a crude, small unheated greenhouse. I put this jar over a plant when it goes into the ground and leave it until the following spring. While this does not keep the plant free of rain or snow, it does eliminate much of the trouble from heaving, freezing and thawing which will affect the newly set iris.



Recently I fell heir to some more of these Christian Brothers wine jugs. After preparing them I was out early the next morning, crawling through the garden placing them over prized seedlings. I wonder what the neighbors thought! I'm getting too old to be learning to crawl.—ETHEL ALLEBAUGH, Spokane, Wash.

Memos for Hybridizers

Green Dwarfs

About this green color: I believe that carotene plastid yellow, not mixing with the sap soluble anthocyanin pigments gives a blended effect rather than a distinct green appearance. Here it is a matter of juxtaposition of individual colors, with the eye blending them for a blend effect, whereas if both pigments were soluble, the intermixing would be complete, with an entirely different visible effect. A certain balance is necessary. I find that a white base color is required. For green, I advise using some white parents to assure a white base color for the green to impose itself. Those who want to be certain of getting some greens quickly should use Bridesmaid with some of the blended pumilas like Cook-1546 of similar types.—WALTER WELCH, Ind.

Blue Beards

In searching for a blue with a blue beard I crossed Chivalry X Contessa and got a row ranging from milky blue-whites to dark blue with beards ranging from yellow through mixed blue and yellow to quite blue with only a little yellow at the inside end of the beard. Also got this mixed, mostly blue, beard from a cross of Baker's white (Snow Flurry x Sylvia Murray) X Sea Lark, on a blue-white flower.—LYS HOUSELEY, Denver, Col.

Lace

I find that lace seems to tend to be recessive. As a rule, to get lacy things both parents must be lacy, though some seedlings seem much more so than others. If lace really is recessive, this would have to mean modifiers were involved; if it is not, then of course it might be due to dosage. Much to my disappointment most of the lace-edged seedlings I bloomed were bunched, and not even lace is beautiful in a wad!—REV. E. W. MINKS, Minn.

Dwarf-Aril Cross

My yellow dwarf chamaeiris seedling x korolkowii brown and green gave interesting seedlings. They range in height from 14-18 inches with nice plant habit, very hardy. Color: five are various tones of green, and two maroon ones, all selfs. Some of the greenish ones have the virus so will have to be discarded. At least one has fertile pollen as I set six pods on tall bearded yellows. Another interesting cross that gave me small iris was a Mt. Timp x Ib-Mac pod of four seeds, all of which grew. These are about twenty inches tall. One has very neat flowers that look like Engraved for color and pattern. These are fertile; had a few seeds from one by April Morn.—ERNEST JUBB, Mich.

The Lovely Lilliputs

I am convinced that to get the best results in breeding Lilliputs we must use the shortest, fine-leaved and small-flowered tetras as well as

the fine-leaved and small-flowered pumilas. That is why I am trying King Tut with its smaller flower and leaves with a tiny yellow pumila of mine out of Nana selfed, in my try for brown Lilliputs. Hanselmayer gives clear well-shaped flowers, but wide, coarse foliage when used with tall. Most of them would be classed as Intermediates.—GRACE GUENTHER, Iowa.

I like the idea of using King Tut in the median breeding. It certainly has been in a lot of parentages of TB's and like Snow Flurry may well be useful in the median iris.—BEN HAGER, Calif.

I believe that sooner or later all the older chamaeiris varieties will be replaced by the Lilliputs; why grow oversized muddy-colored space hogs when it is possible to have proportionate clean-colored Lilliputs? Chamaeiris tends to increase in every direction. Lilliputs go more into cushion clumps, far more compact. Pumila dwarfs are quite neat growers. I like the arenaria hybrids and the pumila x chamaeiris ones are very nice. Of course, some of the new chamaeiris dwarfs are good; I like Orange Glint in particular.—PAUL ANTRIM, Ind.

Intermediate Crosses

The Intermediate iris Red Orchid X Tiffany gave me one hundred percent plicatas, marked rose to dark red on cream to light yellow grounds. Most were vigorous, of good height and fair branching, with many flowers giving a long bloom season. I was surprised, to say the least, at getting plicatas from a 44 chromosome Intermediate!—JOHN HUMPHREY, Okla.

On Intermediate objectives: as we progress with these irises, proportion is one trait we must consider carefully; not a big, big flower on a short stem. Almost all of the species dwarf x tall first generation hybrids have that fault.—WILMA GREENLEE, Ill.

Join a Field Trip for Western Native Study



The big news in Species and Natives Robin Division is that now spring is here it is time to think about collection trips and field trips in general to study the wild irises as they grow in their habitats. As for the past several years, the species enthusiasts of the northwest are planning such a trip. This time they'll concentrate on southwestern Oregon in the early part of May. Anyone interested in the species of this beautiful mountain area, the home of *Iris bracteata* and *Iris inominata* and many others, should not miss the opportunity to learn from investigation of the plants as they occur in the wild. This is an invitation to join the party. Those who would like to go along should get in touch with Roy Davidson, 905 Western Ave., Seattle, Wash., at once!

Both Marvin Black, Salem, Oregon, and Ruth Hardy of Eugene, made trips last year into the Monument Peak area, Linn County,

Oregon and report finding *I. tenax* variety *gormanii* where it had not been previously reported, on the east side of Willamette Valley, fully sixty miles from its nearest recorded station. It was in the same pallid straw yellows. Occurring with it were the familiar whites, light blues, and salmon-pinks where it had mixed its color genes with those of the type *tenax*. These colors are similar to those of similar occurrence in the type-*gormanii* locality, Washington County, Oregon, west of Portland.

Cultural Tips for Tectorum

Tectorum, the roof iris of Japan, is one of the few *Evansia* irises that does well, or even better, in full sun and a heavier garden soil than the shade and humus recommended for the group in general. This could be taken as another indication of its affinity to bearded irises. Coarse vermiculite, the grade recommended for garden use, discourages slugs, so Roy Davidson uses it for its dual purpose of loosening a too-heavy basic clay soil and as a slug discourager. Slug bait is used too. The shallow-rooted *Evansia* species, *lacustris*, *cristata*, and *gracilipes*, particularly, are especially disdainful of a drought condition in summer and will disappear entirely if they get too dry, in the opinion of several who have tried and lost them.

Elvie Page's White Tenax

Several years ago Elvie Page of Olympia, Washington, brought into her garden a white plant of *Iris tenax* found in the wild. It continued to mature its flowers and also its seed even though lifted in flower, a credit to the care of the collector in proper methods. Of the fifty-two seedlings resulting from this seed seven bloomed white, though none was sufficiently husky of growth to flower the second year from seed, and all seven were seedlings that waited until the third year to bloom. These plants have given rise to 177 seedlings lined out a year ago, 39 from the original white, and 138 from the seven seedlings. Elvie writes: "I do not see that the proportion of 7 to 52 is of any Mendelian significance, except to show lavender dominant over white. The original plant was dug adjacent to a very heavily blooming lavender at the time the seed was formed. I was laboring under the delusion that they didn't intercross much, but such is not the case. The white, I take it, are from self-fertilized blooms. I have also sixteen seedlings that were lavender out of the original white, pods set after the whites were past flowering and which should show, when they bloom, Mendelian proportions, with white recessive. I am very anxious to see how they all turn out." So is everyone else who has read of this through the robins. It looks as if this is the beginning of a seed strain that will be fixed to come one hundred percent true from seed, a white strain of *Iris tenax*! As this is one of the hardiest of the *Californicae* species, it is reasonable to expect it to be satisfactory in gardens where others of the *Californicae* are not.

Inter-Species Hybrids

Jean Witt of Seattle reports on a very interesting cross that has been watched with much anticipation. "The description is not for publication, but it definitely proves that we have bloomed a hybrid between a *Californicae* and the *Sibericae* I. *forestii*. It has the sulphur yellow color of the pollen parent, *forestii*." The seed parent was I. *purdyi* or a variant collected in the area where *purdyi* grows and was white with purple veins and prominently colored leaf bases. The foliage of all five plants is intermediate. Cross was made by Joseph A. Witt, assistant director of the University of Washington Arboretum.

From New Zealand Ruth Meldrum reports: "Distinction (Cayeux '25) x *pseudocorus* flowered this year. Among the seedlings is a dainty white one with a touch of yellow. Foliage and flower-form are like the *siberica*. There is no marking."

Some TB Comments

I'll admit that Truly Yours is hard to establish. Just wait until it blooms for you and you'll forget all the disappointments. It hasn't bloomed for me yet, but I'll wait as I just love it. One of my Maryland friends waited three years; this year it was out of this world!

Several friends have told me that Golden Hawk varies widely; I guess that is true about many. Have heard the same about Northwestern but around here it is tall, erect, large bloom, and such a good doer.

Top Flight has more substance than any apricot I've seen around here, but on humid days goes down early and sometimes does not have many buds to follow up.—MICKEY KIRBY, Va.

June Sunlight is one of the finest golden yellows, and its children inherit all of its good stock and substance.—NELSON BROWN, Mich.

Dateline New Zealand, Nov. 19th: Port Wine came out yesterday and it is just as lovely as I imagined it would be. Another new one for me is Golden Sunshine, a pure lovely yellow and a nicely shaped flower.—NANCE WRIGHT.

I expect you have all heard of Mrs. Murrell, Orpington Nurseries. We think she will always be remembered for her introduction of White City. At the Chelsea Show I saw another very nice iris of Mrs. Murrell's, "Cuckoo's Cup," which has pale primrose standards and pale blue falls. Unfortunately it had opened too late for the judging. The Josephine Romney Towndrow Award (for the iris of the year with the best form) was given again this year for a lovely white iris, Kanchenjunga.—GEORGIE McWILLIAM, England.

Border Brevities



Mrs. S. A. Oscar, Charlotte, North Carolina, has helped with flower shows for many years. This year she will arrange a separate division for Border iris so they will not have to compete with the tall stalks. This is a step in the right direction and one that other flower show chair-

men might well follow. A short stemmed iris would not be likely to win over a taller iris, other qualities being equal.—BONABETH BRICKELL, Emporia, Kan.

Tally-Ho seems to breed Borders. To me Pink Ruffles, Copper Frills, and Buttercup Lane are typical Border iris in my garden but I think it will take some time to decide which ones are Borders.—VIOLA KALLENBACH, Ind.

Garden visitors showed more interest in No-We-Ta than in Happy Birthday.—ALICE HUBBARD, Eskridge, Kan.

Luscious is low growing in Memphis but larger flowered and taller than Pink Ruffles. Hummingbird is low and blooms late.—CLARA JORDAN, Tenn.

KODACHROME IRIS SLIDES

The American Iris Society maintains several excellent sets of color slides for rental. One set is made up of a variety of iris such as Dutch, Siberian, Louisiana, Japanese, Douglasiana, and Spuria. The other sets contain slides of tall bearded iris only, showing many of the recent award winners and top favorites, as well as selected garden shots.

Requests for slides should be made 30 days in advance, giving exact date desired, so that the slides can be scheduled to reach you in advance of meeting date to give you a chance to familiarize yourself with the contents of the set.

Each set rents for \$5.00. Make check payable to THE AMERICAN IRIS SOCIETY.

Postage and insurance (\$50.00 per set) is paid by you when returning slides, which is approximately 65c. Contact Slides Chairman for renting of slides.

We feel sure a set of iris slides will help create interest in your Iris Society or Garden Club.

Slides Chairman
Albert G. Lauck
5142 Harvest Lane
Toledo 13, Ohio

Our Members Write . . .

DISPLAY GARDENS

I'm writing in the interest of the Iris Display Gardens at Kingwood Center, Mansfield, Ohio. This Display Garden is being sponsored by the Central Ohio Iris Society in conjunction with Kingwood Center.

We are asking for guest iris which have been named and introduced, or will be named and introduced in the next year, to place in the garden. These irises will be accepted on a guest basis for three years, then disposed of as the donor directs.

During the past two years 300 guest iris have been added to the original collection making a total of 450 varieties in a garden of 4,000 plants.

Region 6, AIS, will hold the Spring Meeting at Kingwood Center in 1959. In view of this regional meeting Dr. Allen, Director of Kingwood Center, requests that any guest iris you care to send to Kingwood be shipped at the earliest possible date after bloom time so they can become established.

In addition to the named iris I am seeking seedlings under number for this meeting. These seedlings are requested on a guest basis for one year and will be returned with all increase after the meeting. They are to be planted in the gardens of local members and at Kingwood Center.

M. F. Dow, Chairman
Garden Committee
R.D. 5, Mansfield, Ohio

Dr. Lee Lenz
Claremont, Calif.

Dear Dr. Lenz,

While I was unable to attend the last AIS Annual Meeting, I was very much interested in the development of a plan to sponsor Test Gardens, and to standardize regulations for the management of them. In conversation and correspondence with Ada Buxton and our own Bob Minnick, Director of the Greater

Kansas City Test Garden, several questions and a few ideas have come to mind on which your opinion would be welcomed.

Prof. Norlan Henderson's article in the October Bulletin has stimulated some additional conjecture, and it is about this particular point of view that I would like to comment.

I think first that Regional or local test gardens are effective to the degree that (a) they supply a growing climate comparable to that of the local hybridizer, thus providing opportunity for comparison under similar and nearly ideal growth conditions; (b) they will attract the offerings of a greater number of breeders, who might be too timid or too critical of their own originations to send them at once to a central test garden; and (c) most areas have a sufficient number of Judges who could travel easily to a local test garden for appraisal of new entries, a number of whom could not make annual trips to a Central test garden.

On the other hand, a single central test garden would be ineffective to the extent that (a) it would provide no measure of determination as to a variety's performance in varying climates; (b) fewer hybridizers would be represented, and by fewer total entries, but the number of varieties in a single garden would be so great as to make management and selection difficult; and (c) a much smaller percentage of the total number of eligible judges would be involved in making annual selections, and for the most part they would be the same group each year.

As a possible compromise between the two extremes may I suggest:

1. The development of Regional or local area Test Gardens, which must be individually approved by the AIS.

2. The establishment of four or five general climatic area test gardens, i.e., New England, Southeast, Southwest, West Coast, Midwest.

Introduced in 1957

ANGELINE

(Solomon 48-4A1: Snow Flurry X Azure Skies)

Acclaimed by many fanciers as the finest white to date. Large ruffled pure white (including a white beard) with domed standards and flaring falls, carried on 40" stalks; smooth texture and heavy substance, has pollen and sets seed readily.

Awarded Honorable Mention in 1957 Net \$15.00

May be obtained from the following:

Raymond C. Solomon

(Originator)

1789 HUBBARD AVENUE
SALT LAKE CITY 8, UTAH

Wallace Iris Gardens

417 SOUTH STATE
OREM, UTAH

1958 INTRODUCTIONS

Seven distinctive originations of O. L. Brown

COUNTRY CUZZIN	—Apricot and white
FASHIONETTE	—Rosy lilac
FIRENZE	—Violet, tangerine beard. H.C. '57, #6-20A1
GOSPER	—Cream
HEARTHGLOW	—Orchid and gold
POET'S DREAM	—White—H.C. '57, #6-21B3
SWISS CHARM	—Orchid and apricot

— PLUS —

CHIEF CHICKASAW—Origination of Jake H. Scharff, Memphis, Tenn. Top ranking H.C. of 1957.

Conventioners will remember this fine red-brown iris under number 58-28-86.

SEND FOR OUR CATALOG WITH COMPLETE DESCRIPTIONS OF THESE AND MANY, MANY MORE OF THE FINEST MODERN TALL BEARDED IRIS.

BROWN'S SUNNYHILL GARDENS

ROUTE 4, BOX 145 B, WALLA WALLA, WASHINGTON

MAXIMS FIRST INTRODUCTIONS

RUFFLED SKIES (Maxim '55) B1 \$20.00

Sky blue with that jaunty air, real substance.

In modern styling and extremely ruffled throughout.

VIOLET RIPPLES (Maxim '58) VI \$20.00

Will be a strong competitor in the violet class.

Attractive individual style that's bound to please.

Convention Guests for '58 AIS—Bisdee Gardens

GREENWOOD GARDENS

2157 SONOMA ST., REDDING, CALIF.

In development, Mr. Henderson's idea of annual upgrading could easily be put into effect by the following means: after growing and blooming in the regional garden, if the variety has been voted an H. C. the clump could be divided, and a rhizome sent each of the Area gardens for further growth and judging, following the remainder of the schedule suggested by Mr. Henderson.

In the overall evaluation of Test Gardens, I think we should look carefully into two basic questions which are often overlooked in enthusiasm over a given local project.

First, are the growers of iris, whether they be AIS members or not, ready to agree that the number of annual introductions has reached a point of utter confusion, resulting in far too many virtual duplications and in many cases inferior varieties; that there should be some official control over introductions to limit the quantity and to improve the overall quality; that a system of selection approximating the "All-America" selections of other flower groups be employed, and that this might in any event be the ultimate result of a co-ordinated test five-year schedule?

Second, is it possible that the official establishment of test gardens will minimize the placement of guest iris at the sites of the Annual Meetings to the extent that the incentive for attendance at these meetings will drop appreciably? Or, on the other hand, would it be wise to hold future Annual meetings at the sites of the Area test gardens, thus rotating the meetings countrywise on about a five year schedule?

I am sending a copy of this letter to Ada Buxton as our Regional Vice-President and a member of your Committee, and to Geddes Douglas, in case he might want to use it to stimulate some additional member reaction. Would appreciate your reactions.

Sincerely,

ALLEN HARPER
Gashland, Mo.

* * *

A.M. IRIS WANTED

I am trying to secure all of the iris that have won the Award of Merit in

the U.S., and I have all but two old ones, namely, My Lady, 1925 (introduced by McKinney in 1924), and Primrose, 1928 (introduced by Sturtevant in 1925.)

I should appreciate hearing from any of the AIS members who can tell me where I can find these iris.

JOHN C. BROWN
327 E. Park Ave.
Collinsville, Ill.

* * *

1939 CHECK LIST WANTED

I want to buy or borrow a copy of the 1939 Check List. I love the Bulletin though I am a "greenhorn." I'm just plain "nuts" about iris, all kinds.

MRS. L. J. HOLDEN
Box 192,
Plains, Montana

* * *

PAGE 82 REFUTED

I enjoy the AIS Bulletin very much and look forward to it each quarter, however, I wish you would put more varietal comment in each issue. I should like to see the iris names in capital letters to save time for busy people who wish to hunt up a certain iris they saw described.

In contrast to your statement on page 82 of the Jan., 1958 Bulletin that iris are not good for landscaping anymore, we in this region find them very good for landscaping as the foliage is so nice for background for other flowers. Evidently we do not have the disease problems that are found elsewhere. We spend less time on our iris in the border than any other plants that we raise.

Maybe we are just lucky here and maybe our time is coming to fight disease, but until then, I am a hundred per cent for tall bearded iris in a well-planned border that is not too crowded.

MRS. WALTER E. NOYD
1501 Fifth St.
Wenatchee, Washington

P.S. I wish each one who writes varietal comment would tell more about the iris they are praising. I like to know the color, substance, if it is flaring, etc.

THE TERRELL TRIPLETS

Lillian and Collie Terrell of Wasco, California were quite intrigued last spring when they spotted three little fans emerging from one hole in the ground in their cross of Inca Chief X Generous. They looked different from the other plants in the closely planted seed. Planting had been done December 1, 1956. In the middle of May 1957 the seedlings were ready for transplanting. The three-fanned plant was smaller than the sister seedlings, and on digging it was found that the root system and position of the rhizome indicated this was a triple embryo. By October the triplets measured seven and three-quarters inches, while the siblings ranged from eleven to fifteen inches. The picture of health, they'll bloom this spring, it's hoped.

* * * * *

(The iris clone pictured at the right will evidently produce three plants. Will all three have identical flowers? Or, will they all be different? What is your guess? Write The Bulletin and tell us what you think. Ed.)



A Word of Thanks . . .

The Median Iris Society wishes to thank The American Iris Society for its help during the past year. The co-operation of the BULLETIN in acting as a medium of communication during this period has been invaluable.

The Median Iris Society invites those interested in small bearded irises to become members. Dues are \$1.00 per Year. The MIS Yearbook, \$2.00 per copy. Send remittance to

Mrs. Robert Grey
Station KCRE
Crescent City, Calif.

Post Script

I wonder if you good people who read this quarterly realize the difficulty in assembling enough printable material necessary for four interesting and attractive publications a year. Would you believe it if I told you that we have had almost no backlog of printable material in the past other than duplications of varietal comment? Let me tell you that this is absolutely true. Your Editors: Mrs. Grey, Mrs. Heinig, Mrs. Peterson, and I have worked up every piece of printable material that we have received, and it has either been printed or is in the process of being included in this or the July issue.

It has been our policy in the past to allocate approximately fifty per cent of the available space, outside of the Society's business and articles of general interest, to articles concerning Tall Bearded iris in all its aspects, and to divide the remaining fifty per cent of available space among other types of iris: Louisianas, Species and Natives, Arils, Siberians, Spurias, Dwarfs, and Medians; which last category covers the Standard Dwarfs, Intermediates, Border, and Table iris. A lack of contributions from AIS members sometimes upsets this balance.

Let me go further, for the past two years spontaneous effusions in the form of articles from the membership at large have been decreasing. Four times a year we are faced with assembling enough material for a Bulletin, of a diversified nature yet authoritative, and of a certain newness in point of view; and four times a year we find we do not have enough of it. And so, what do we do? We scratch our collective heads and decide that Old John hasn't done a piece for the Bulletin in a long time, and we write him because we know from previous experience that Old John will come through in a pinch. And sure enough, he does. But here is the rub. Maybe we need a good article on the Culture of Tall Bearded Iris in Humid Areas, for instance, but Old John lives only about two miles from Death Valley, so that is out. Our Friend, Old John, knows nothing of our desperate situation, of course. At the moment he is interested in the *sisyrinchium*, so we get a thoroughly readable, humorous, erudite discussion of the distribution of *I. sisyrinchium* in Afghanistan, but nothing about Tall Bearded Iris in Humid Areas.

Does this mean anything to you? It should. A great percentage of our more than five thousand members raise and hybridize Tall Bearded iris. Surely some of these people are trying some of the new systemic poisons for borers. Surely others must be experimenting with the dozens of new chemicals for selective weed control. We have a new characteristic in bearded iris that has popped up recently—laciness of petal and sepal. Has no one counted the incidence of this characteristic in a representative number of seedlings so that its inheritance may be prognosticated?

These are just a few of the subjects on which we should be getting literally dozens of good articles. But we are getting mighty little—nothing but a dribble. What is the matter then? Surely all of our people can't be struck dumb at the same time. Is it that our readers simply do not care? Or is it a case of "I'm busy, let George do it." This could be the case. But if it is, I would like to admonish those readers that when George (or Old John) does it, no one has a leg to stand on when he or she starts to criticize what George has done.

I think I can put my finger on one trouble. In the past several years we have placed great emphasis on regional activity. One of the regional activities is the Regional Bulletin. Many of our best writers are being pressed for contributions for these Regional Bulletins, and as a result they are not writing for our national publication. To me, this is a sad state of affairs, but before I say anything more and have twenty-three Regional Bulletin editors pulling my hair, let me opine that there certainly is a place for our regional publications. They serve a most useful purpose in publishing a vast volume of regional news which couldn't possibly be covered in our national quarterly, and in such a capacity they are indispensable.

My whole point here is that a story of national interest should not be buried in a publication of limited circulation. It simply does not make sense. I've been asked why we did not reprint some of these articles. We could do this, I suppose, but I never did like old, worn-out, second-hand clothes; chewing gum; automobiles; or printed material. It upsets my dignity to think that we must resort to this when we certainly deserve better. SO please consider this as an appeal. If you editors of Regional Bulletins, receive an article which you think may be of interest to *all* of the members of the AIS, share it with us. At least give us a chance to see if we would like to have it.

One more point before I close. In past years many people wrote to the central office expressing their views as to what they wanted in the Bulletin—what they liked and what they did not like. These letters were most helpful. It gave us a gauge to go by in the selection of material. For the most part these letters came along with the payment of dues. Such letters usually must be attached to the membership receipt and filed in the office of the Secretary. Now that the central office is located in St. Louis and the Bulletin work is done in Nashville, it is difficult for me to have access to these letters. So if you, good readers, feel in the mood, write The Bulletin, 3902 Hillsboro Road, Nashville 12, Tenn. Tell us what you would like to have; give us some constructive criticism on what we are doing, as Frank Cassel did in Bul. #147, and you will find us mighty easy to get along with.

BURNS IRIS GARDENS

1958 Introductions

GRACE I. BURNS—Lavender self (Snow Flurry X ?)	\$6.00
ESTHER E. DAGNELL—Blue white self (Snow Flurry X Lord of June)	\$6.00
PATTY BURNS—Standards peach pink, falls raspberry bordered peach (Pagan Princess X Heritage)	\$6.00

HARVEY R. BURNS

1142 LINCOLN ST. • MILTON, PENNSYLVANIA

THE AMERICAN PEONY SOCIETY invites all who are interested to join its membership. Applications can be made to the Secretary, George W. Peyton, Box No. 1, Rapidan, Virginia.

The membership fee is \$5.00, \$3.00 of which is for a subscription to the American Peony Society Bulletin for one year.

OFFICIALLY INTRODUCING:

PEARL CUP (Harold Knowlton) Border Iris	\$3.00
CRICKET (Harold Knowlton) Border Iris	\$3.00
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PLEASE SEE OUR CATALOG FOR FURTHER DETAILS

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GROWERS OF NATIVE ONCOCYCLUS IRISES

Prices per 3, air mail charges included:

I. atropurpurea \$1.20, *I. Mariae* \$1.35, Hybrids: *atrofusca* x *Mariae* \$1.35
I. nazarenae \$1.75, *I. atrofusca* \$2.10.

Prices per 1: I. Haynei \$1.10, *I. Lortetii* \$1.60, *I. Samariae* \$5.10.

By ordering 12 of the less expensive species, or 3 of the more expensive, 25% reduction. Minimum order \$5.00. Payment with order by Foreign Bank Draft. Shipping time: July.

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38" M-L.—Warm-hearted white, deeply fluted ruffling. Excellent form and branching. \$25.00

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36" M-L.—True Chartreuse, ripe olive flush in falls. Nicely branched, good form. Unusual. \$20.00

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CARCO-X FOR SOFT ROT



One treatment dries up Soft Rot over night. But why wait until Soft Rot attacks your rhizomes? Use Carco-X and prevent Soft Rot. Clean up your iris garden early in spring. Remove dead leaves and drench iris clumps with the solution, saturating the soil surrounding the rhizomes. It costs so little to keep your iris healthy. One quart of Carco-X liquid makes 50 gallons of solution. Easy to mix and easy to use.



POST PAID PRICES IN U.S.A.

1/2 Pint \$1.65

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1 Gallon \$9.90

Gable Iris Gardens

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Minneapolis 6, Minn.

CLEVENGER'S GARDEN

KIRKSVILLE, MISSOURI

1958 Introductions

DOROTHY BEATTY: This is a large iris. The overall color is vinaceous purple, the falls darker Bishop purple. Laced edging on both standards and falls golden brown. Haft golden brown, beard yellow. Branching and placement good. Substance is excellent. Height 34". It takes wind and rain. Standards closed, falls flaring. Fertile both ways, and a vigorous grower. C.C. both the Kirksville and Omaha shows in 1950. Midseason. Stock limited. \$25.00

GIMA SAN: Large ivory self with a yellow beard. A few greenish lines at the haft which help to heighten the ivory color. Standards and falls wide. Substance excellent, branching and placement good. Midseason, height 34-36". (Evenglow X Snowqualmie) Fertile. \$20.00

MOOD MAUYE: Rosy lavender with tangerine beard. Very large flower, standards and falls are extremely wide and slightly laced. Substance is good, branching excellent. Midseason, a good grower and bloomer. Plenty of stock. \$15.00

SPECIAL OFFER: One each of the three, \$45.00.

AMERICAN IRIS SOCIETY
OFFICIAL ACCREDITED GARDEN JUDGES, 1958

Compiled and Submitted by
Jay Ackerman, Chairman, Awards Committee

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(Staten Island is in Region 19)

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 Mrs. Chas. M. Streibich, Rt. 6, Box 953, Battle Creek, Mich.

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 Mr. John E. Pierce, 2583 Jackson, Memphis, Tenn.
 Mr. E. B. Pittard, 2342 Vollentine, Memphis, Tenn.
 Mrs. J. D. Pond, 1703 Monroe St., Vicksburg, Miss.
 Mrs. A. K. Primos, 1750 Meadowbrook Rd., Jackson 6, Tenn.
 Mrs. Arline Rawlins, 1244 Park St., Bowling Green, Ky.
 Mrs. T. B. Revell, Jr., 334 Third St., Grenada, Miss.
 Mrs. Leo F. Reynolds, 4284 Auburn Rd., Memphis 16, Tenn.

Mrs. Ruben Sawyer, 4887 Shady Grove Rd., Memphis, Tenn.
 Mr. Jake Scharff, 1174 Fountain Court, Memphis, Tenn.
 Miss Alta Shelton, 304 W. Tuscaloosa, Florence, Ala.
 Mrs. J. M. Sisson, 69 W. Dam Village, Sheffield, Ala.
 Mrs. William H. Smith, No Mistake Plantation, Satartia, Miss.
 Mrs. H. P. Tipton, Horn Lake, Miss.
 Mrs. John W. Turner, 122 Seneca Trail, Louisville 14, Ky.
 Mrs. Bruce B. Vanece, 201 Kenwood Drive, Louisville, Ky.
 Mr. William H. Wicker, 1101 22nd St., S.W., Knoxville, Tenn.
 Mrs. T. S. Williamson, 2234 Norwood Blvd., Florence, Ala.
 Mr. Jesse E. Wills, 1201 Belle Meade Blvd., Nashville 5, Tenn.
 Mrs. J. L. Wooten, 361 Valley St., Jackson, Miss.

Region Eight **MINNESOTA, WISCONSIN**

RVP, Mrs. H. W. Goodrick, 16610 W. Pepper Lane, Brookfield 14, Wisconsin
 Mr. A. G. Blodgett, 1008 East Broadway, Waukesha, Wis.
 Mrs. Edythe Burns, 1707 77th Ave., North, Minneapolis 12, Minn.
 Mr. Duane W. Foss, 5920 St. Croix Ave., Minneapolis 22, Minn.
 Mrs. Emil Foss, 6045 St. Croix Ave., Minneapolis, Minn.
 Mr. Granvil B. Gable, 2543 38th St., South, Minneapolis 6, Minn.
 Mr. R. Stanley Larson, 11 South 57th Ave., West, Duluth, Minn.
 Mr. Alfred Mueller, 14245 West Wisconsin Ave., Elm Grove, Wis.
 Mr. Robert M. Reinhardt, Rt. 4, Box 499, Waukesha, Wis.
 Mrs. Robert M. Reinhardt, Rt. 4, Box 499, Waukesha, Wis.
 Mr. W. G. Sindt, 1847 East Ave., North, St. Paul 9, Minn.

Region Nine **ILLINOIS**

RVP, Mr. Nathan H. Rudolph, 405 Lakelawn Blvd., Aurora, Ill.
 Mr. Fred E. Bond, 200 South 17th Ave., Maywood, Ill.
 Mr. Joseph M. Botts, R.R. 1, Woodstock, Ill.
 Dr. Charles E. Branch, Piper City, Ill.
 Mr. Walter D. Button, 14501 St. Louis Ave., Midlothian, Ill.
 Brother Charles, S.V.D., Teahany, Ill.
 Mr. Elmer A. Claar, 617 Thornwood Lane, Northfield, Ill.
 Mrs. Fred H. Clutton, 809 Kimball Road, Highland Park, Ill.
 Mr. Gerald J. Donahue, 134 South Cuyler Ave., Oak Park, Ill.
 Miss Eva E. Faught, 809 West Main, Carbondale, Ill.
 Mr. Orville W. Fay, 1775 Pfingston Road, Northbrook, Ill.
 Mr. Hubert A. Fischer, Rt. 3, 63rd St., Hinsdale, Ill.
 Mr. Richard Goodman, 253 Bloomingbank Road, Riverside, Ill.
 Mrs. R. E. Greenlee, R.F.D. 3, at Horace, Chrisman, Ill.
 Mr. Theodore R. Green, Joy, Ill.
 Mrs. Lindsay R. Hahn, 2617 South 11th St., Springfield, Ill.
 Mrs. Mildred Harrell, 1108 Liberty St., Aurora, Ill.
 Mr. William M. Marberry, 806 S. Elizabeth St., Carbondale, Ill.
 Mr. William G. Reiser, 1235 Glenview Road, Glenview, Ill.
 Mr. Ralph M. Schroeder, Warrensburg, Ill.
 Mr. George G. Zink, R.R. 2, Box 249, Chicago Heights, Ill.

Region Ten **LOUISIANA**

RVP, Miss Marie Caillet, Box 365, S.L.I. Station, Lafayette, La.
 Mr. Charles W. Army, P.O. Box 511, S.L.I. Station, Lafayette, La.

Mrs. Walter Colquitt, 487 Albany, Shreveport, La.
 Mr. Sidney L. Conger, 607 South Hazel, Arcadia, La.
 Mr. Claude W. Davis, 470 Delgado Drive, Baton Rouge, La.
 Mrs. D. R. Dickinson, 823 Ratcliff St., Shreveport, La.
 Miss Caroline Dormon, Saline, La.
 Mr. R. A. Edmonds, 2011 McCutchen, Shreveport, La.
 Mrs. J. M. Gorton, Rt. 4, Box 920, Shreveport, La.
 Mrs. John McInnis, Sr., 911 Jefferson St., Minden, La.
 Mr. John F. Neugebauer, 1121 Beach St., West Lake, La.
 Mrs. J. C. Roberts, R.F.D. 3, Seigen Road, Baton Rouge, La.
 Mr. Hamilton M. Robertson, 2515 Vance Ave., Alexandria, La.
 Mrs. Alex F. Smith, 212 Ockley Drive, Shreveport, La.
 Mrs. A. P. Walther, 2121 Meriwether Road, Shreveport, La.

Region Eleven **MONTANA, IDAHO, WYOMING**

RVP, Mrs. E. J. Henke, 1107 Chamberlin, Boise, Idaho
 Mrs. Ed Conrad, Castleford, Idaho
 Mr. Robert Jensen, 429 South 9th, Montpelier, Idaho
 Mrs. Alfred Kramer, R.F.D. 1, Castleford, Idaho
 Mrs. James Maher, 708 10th Ave., South, Box 43, Nampa, Idaho
 Prof. Homer N. Metcalf, Montana State College, Bozeman, Mont.
 Mrs. Ralph S. Nelson, 906 Foster Ave., Coeur d'Alene, Idaho
 Mrs. Estelle A. Ricketts, Rt. 3, Box 226, Jerome, Idaho
 Mrs. Sidney W. Smith, Route 2, Twin Falls, Idaho
 Mrs. Thos. E. Speedy, 459 Elm St., Twin Falls, Idaho
 Mrs. Lowell A. Storm, Chugwater, Wyo.
 Mrs. Glen Suiter, Route 5, Caldwell, Idaho
 Mrs. C. W. Valette, Box 158, Declo, Idaho

Region Twelve **UTAH, ARIZONA**

RVP, Mrs. Valentine N. Jacobson, 1525 E. 39th S., Salt Lake City 17, Utah
 Mrs. Margaret Y. Albright, 2101 E. 45th, S., Salt Lake City 17, Utah
 Mrs. Ralph Carlston, 3642 S. 13th E., Salt Lake City, Utah
 Dr. Philip G. Corliss, P.O. Box 68, Somerton, Ariz.
 Mrs. Luzon Crosby, 306 W. 400 S., Orem, Utah
 Mrs. A. J. Fitzgerald, 2763 S. 8400 W., Magna, Utah
 Mr. Walton E. Foulger, 171 South 3rd, East, American Fork, Utah
 Mrs. J. R. Hamblen, 2778 West 5600 South, Roy, Utah
 Mr. Fisher Harris, 1422 Military Way, Salt Lake City, Utah
 Mr. Carl A. Larsen, 2561 Elm Ave., Salt Lake City, Utah
 Mr. Tell Muhlestein, 691 East 8th, North, Provo, Utah
 Mr. M. D. Naylor, 1974 Laurelhurst Dr., Salt Lake City, Utah
 Mr. C. M. Reynolds, 6863 Crestview Circle, Bountiful, Utah
 Mr. Raymond C. Solomon, 1789 Hubbard Ave., Salt Lake City, Utah
 Mr. M. D. Wallace, 417 South State St., Orem, Utah

Region Thirteen **WASHINGTON, OREGON, BRITISH COLUMBIA**

RVP, Mr. Bennett C. Jones, 5655 S.W. Boundary, Portland, Ore.
 Mr. Foster M. Allen, 537 N.W. 5th Ave., Camas, Wash.
 Mrs. Chris Amend, Trinidad, Wash.
 Mrs. Tom M. Brown, Route 4, Box 145, Walla Walla, Wash.

Mrs. Rex P. Brown, 14920 Highway 99, Lynwood, Wash.
 Mrs. L. Caldwell, Route 6, Box 606, Vancouver, Wash.
 Mr. Norris W. Carter, N1515 Greenacres Road, Greenacres, Wash.
 Mrs. Donald A. Conley, 1201 Cedar, Richland, Wash.
 Mr. Fred R. Crandall, 6402 33rd Ave., South, Seattle 8, Wash.
 Mr. Merle Daling, Box 744, Waterville, Wash.
 Mr. B. LeRoy Davidson, 905 Western Ave., Seattle 4, Wash.
 Mrs. Rose Dightman, 3219 North 33rd St., Tacoma 7, Wash.
 Mrs. Alexia Gerberg, Naches, Wash.
 Mr. Joseph H. Hoage, 1314 Stevens Drive, Richland, Wash.
 Mrs. Joseph L. Hunt, 7802 South 21st, Tacoma, Wash.
 Dr. Frederick R. Judy, 503 West Sumner, Spokane 4, Wash.
 Mr. Jack G. Linse, 1421 North 16th Ave., Yakima, Wash.
 Mrs. L. B. Losey, Route 2, Box 388, Walla Walla, Wash.
 Mr. Austin Morgan, 417 S.E. Elm Ave., Drawer 248, College Place, Wash.
 Mrs. Walter E. Noyd, 1501 Fifth St., Wenatchee, Wash.
 Mr. Gordon W. Plough, P.O. Box 117, Wenatchee, Wash.
 Mrs. Jake L. Smith, Route 2, Waitsburg, Wash.
 Mrs. Hattie Sparger, 1324 10th, Clarkston, Wash.
 Mr. Ronald J. Beattie, Route 3, Box, 535, Canby, Ore.
 Mr. J. C. Kirkpatrick, 240 S.W. Third, Pendleton, Ore.
 Mrs. Marjorie Roark, 1024 N.W. Hawthorne, Grants Pass, Ore.
 Mr. George A. Shoop, 2009 N.E. Liberty, Portland 11, Ore.
 Mr. Chester W. Tompkins, Canby, Ore.
 Mr. Fred E. Dyer, 654 No. 4 Road, Richmond, B.C. Canada

Region Fourteen **NORTHERN CALIFORNIA, NEVADA**

RVP, Mr. L. A. Gaulter, 271 Farrelly Drive, San Leandro, Calif.
 Mr. Frank L. Crouch, 1811 San Pedro Ave., Berkeley, Calif.
 Mr. David Childs, 4849 Pennsylvania, Fair Oaks, Calif.
 Mrs. Abbie Collet, P.O. Box 1183, Reno, Nevada
 Mrs. Thomas S. Dabagh, 1509 Acton St., Berkeley, Calif.
 Mrs. Wilma Darcy, Box 1108, Monterey, Calif.
 Mr. Sidney P. Dubose, Rt. 6, Box 424, Modesto, Calif.
 Mrs. L. A. Gaulter, 271 Farrelly Drive, San Leandro, Calif.
 Mr. James M. Gibson, 219 California St., Porterville, Calif.
 Mr. Ben R. Hager, Route 6, Box 424, Modesto, Calif.
 Mr. Clyde V. Hitchcock, 4405 Oak Ave., Sacramento 21, Calif.
 Mr. F. E. Hutchings, 855 Monterey Court, San Leandro, Calif.
 Mrs. Ethel A. Johnson, 22559 B Street, Hayward, Calif.
 Mr. George Johnson, 22559 B. St., Hayward, Calif.
 Mr. H. E. Kerr, Box 7, Tehama, Calif.
 Mrs. M. C. Knopf, 651 Dry Creek Road, Campbell, Calif.
 Mr. David Lercari, 3320 Springhill Road, Lafayette, Calif.
 Mr. Walter Luihn, 748 Cherry Way, Hayward, Calif.
 Mrs. H. Jedd McClatchy, 1341 45th St., Sacramento, Calif.
 Mrs. Grant Merrill, P.O. Box 877, Red Bluff, Calif.
 Mrs. Al Nahas, 4350 Stockton Blvd., Sacramento, Calif.
 Mr. Roy O. Oliphant, 40 Senior Ave., Berkeley 8, Calif.
 Mr. Willard O. Pankost, 6300 1st Ave., Sacramento 17, Calif.
 Mr. Donald L. Peterson, 1114 Longfellow Ave., Campbell, Calif.
 Mr. Carl A. Quadros, 1749 Bell St., Sacramento 21, Calif.
 Miss Ruth Rees, 1059 Bird Ave., San Jose 25, Calif.
 Mrs. Bernice Roe, 10371 White Rd., San Jose, Calif.
 Mrs. A. L. Romer, R.F.D. 1, Box 101, Ukiah, Calif.

Mr. W. B. Sehortman, 1221 West Putnam, Porterville, Calif.
Mrs. Othelia Scoville, 560 No. 21 St., San Jose 12, Calif.
Mrs. Mona Stipp, Route 1, Box 79, Ukiah, Calif.

Region Fifteen
SOUTHERN CALIFORNIA

RVP, Mr. Clarke Cosgrove, 8260 Longden, San Gabriel, Calif.
Mrs. Sereno E. Brett, 201 Calle Palo Colorado, Santa Barbara, Calif.
Mrs. Laura Burbridge, 17231 Sherman Way, Van Nuys, Calif.
Mr. S. H. Carse, 2844 Chatsworth Blvd., San Diego 6, Calif.
Mr. Ralph Conrad, 13542 Hart St., Van Nuys, Calif.
Mr. Tom Craig, R.R. 4, Box 315, Escondido, Calif.
Mrs. J. C. Cruise, 35090 Ave. G, Yucaipa, Calif.
Dr. H. L. Decker, 3880 Clayton Ave., Los Angeles 27, Calif.
Mrs. Barry Dibble, 120 East Palm Ave., Redlands, Calif.
Mrs. Elsie Heimer, 4748 Columbus Ave., Sherman Oaks, Calif.
Mr. Charles R. Hopson, 9083 East Duarte Rd., San Gabriel, Calif.
Mr. Frank Jordano, Jr., 745 Puente Drive, Santa Barbara, Calif.
Mr. Federick Kennedy, Jr., 1304 West Juanita Ave., San Dimas, Calif.
Dr. Lee W. Lenz, 1500 North College, Claremont, Calif.
Mrs. Mildred Lyon, 7041 Woodman Ave., Van Nuys, Calif.
Miss Elma Miess, 12982 Borden Ave., San Fernando, Calif.
Mr. George H. Murray, 20520 Juanita Ave., Covina, Calif.
Mrs. Edward Owen, 6855 North Longmont, San Gabriel, Calif.
Mrs. Douglas Pattison, 304 Narcissus Ave., Corona del Mar, Calif.
Mrs. Otto Stuetzel, 4746 Ronmar Place, Woodland Hills, Calif.
Mr. Frank S. Walker, 7013 Haskell Ave., Van Nuys, Calif.
Mr. Marion R. Walker, 5210 East Telephone Road, Ventura, Calif.

Region Sixteen
CANADA EXCEPT BRITISH COLUMBIA
(British Columbia is in Region 13)

RVP, Mr. Lloyd Zurbrigg, 33 College St., Kingston, Ont.
Mr. George Brodie, Box 11, Winona, Ontario, Canada
Mr. R. G. Cole, 187 St. Clair Blvd., Hamilton, Ont.
Rev. W. T. Coreoran, 50 Well St., Stratford, Ont.
Mr. Lambert de Wit, 3699 Jeanne Mancee, Montreal, Quebec, Canada
Mr. A. K. Edmison, Oliphant St., Brighton, Ont.
Mr. Douglas Insleay, 7105 Waverley St., Montreal 14, P.Q., Canada
Mr. Leslie Laking, Royal Botanical Gardens, Hamilton, Ont.
Mrs. William McCann, 1 Queen St., North, Thorold, Ont.
Mr. W. J. Moffat, 170 Delaware Ave., Hamilton, Ont.
Mrs. Bruce Richardson, Route 2, Hannon, Ont.
Mr. A. H. Rolph, 733 Searlett Road, Weston 15, Ont.

Region Seventeen
TEXAS

RVP, Mrs. Stayton Nunn, 11122 Claymore Drive, Houston 24, Texas
Mr. Z. G. Benson, 2211 Denver St., Wichita Falls, Texas
Mrs. Z. G. Benson, 2211 Denver St., Wichita Falls, Texas
Mrs. J. Gordon Bristow, 554 Hillside Dr., Big Spring, Texas
Mrs. L. E. Brooks, R.R. 2, Iowa Park, Texas
Mrs. Lawrence Burt, Route 2, Box 215, Waco, Texas
Mrs. Stella B. Chapman, 9011 Diceman St., Dallas 18, Texas

Mr. W. R. Cochran, 3500 Beverly Drive, Dallas, Texas
 Mr. Jesse W. Collier, 1018 S. 31st St., Temple, Texas
 Mrs. E. W. Cowden, 1400 Country Club Drive, Midland, Texas
 Mrs. J. D. Dillard, 2007 Harvard Drive, Midland, Texas
 Mrs. Dock Dudley, P.O. Box 212, 1106 East Garnett, Gainesville, Texas
 Mrs. J. E. Gill, 1616 12th St., Wichita Falls, Texas
 Mr. H. H. Henkleman, 4020 Linden Ave., Fort Worth 7, Texas
 Mrs. Walter C. Hodges, Route 8, Box 342, Dallas 11, Texas
 Mrs. C. R. Keltner, 713 Van Buren, McGregor, Texas
 Mrs. H. S. Keough, 2830 Storey Lane, Dallas 20, Texas
 Mr. W. D. Lee, 707 East 9th St., Houston 7, Texas
 Mrs. Joe M. Leonard, Sr., 227 Lanins St., Gainesville, Texas
 Mr. A. E. Mackey, Box 3844, T.S.C.W., Denton, Texas
 Mrs. Houston McMurray, 209 So. Hancock, Henrietta, Texas
 Mr. M. W. Norton, Jr., 4215 Rosa Road, Dallas 20, Texas
 Mrs. M. W. Norton, Jr., 4215 Rosa Road, Dallas 20, Texas
 Mrs. A. S. Parks, Route 4, Box 505-E, Houston, Texas
 Mrs. Elizabeth A. Reneau, 2625 Persa, Houston 6, Texas
 Mrs. J. H. Richardson, 6402 Wake Forest, Houston 5, Texas
 Mr. Guy Rogers, P.O. Box 354, Wichita Falls, Texas
 Mrs. Guy Rogers, 1806 Grant St., Wichita Falls, Texas
 Mrs. W. A. Salmon, 901 Morrison, Marshall, Texas
 Mrs. J. Willis Slaughter, 4 West 11th Place, Houston, Texas
 Mrs. A. M. Tallmon, 3312 Childress St., Fort Worth, Texas
 Mrs. Julius Stanglin, 5423 Lindsley Ave., Dallas 23, Texas
 Mrs. Mary F. Stevens, P.O. Box 142, 824 Gambrell St., Ft. Worth, Texas
 Mrs. W. E. Wallace, 408 North 7th St., Temple, Texas
 Mrs. Loreta White, 908 South Clements, Gainesville, Texas
 Mr. Roy E. White, 3816 Lenox Drive, Fort Worth, Texas

Region Eighteen **MISSOURI, KANSAS**

RVP, Mrs. Walter H. Buxton, 817 S. Sappington Rd., Webster Groves 19, Mo.
 Miss Mary A. Becker, 7221 Palmer Rd., Rt. 2, Kansas City 33, Mo.
 Mr. Clifford W. Benson, 1201 Verl Place, St. Louis, Mo.
 Miss Lily Buder, 3509 Brown Road, St. Louis 21, Mo.
 Dr. Lewis Clevenger, 824 E. Patterson, Kirksville, Mo.
 Mr. Paul Dennis, Route 9, Box 890, Springfield, Mo.
 Mrs. W. O. Fleck, 29 Silver Lane, Independence, Mo.
 Mrs. W. A. Gates, 414 West College, Aurora, Mo.
 Mr. Allen Harper, 890 F. Street, Gashland, Mo.
 Dr. William Hunt, 2600 Pacific, St. Joseph, Mo.
 Mr. Marvin G. Olson, 1605 Salem Hills Drive, Rock Hill 19, Mo.
 Mr. Ray C. Palmer, Weidman Rd., Rt. 1-Box 382A, Manchester, Mo.
 Mrs. Ray C. Palmer, Weidman Rd., Rt. 1-Box 382A, Manchester, Mo.
 Mr. P. M. Petersen, 5400 Euclid, Kansas City 30, Mo.
 Mr. Ray K. Rickman, 1610 Bird Ave., Joplin, Mo.
 Mr. Glenn Rogers, 700 Queen Ridge Drive, Independence, Mo.
 Mrs. J. A. Sapp, 2319 Pennsylvania, Joplin, Mo.
 Mr. Carl O. Schirmer, 6104 King Hill Ave., St. Joseph, Mo.
 Dr. Henry W. Schirmer, 5701 S. 2nd St., St. Joseph, Mo.
 Mrs. W. F. Scott, Jr., 3 Sassafras Lane, Ferguson 21, Mo.
 Mr. Herman J. Selle, 109th & Grandview Rd., Hickman Mills, Mo.
 Mr. Stanley G. Street, 11219 East 19th, Independence, Mo.
 Mr. Elmer H. Tiemann, Route 3, Box 811, Robertson 21, Mo.
 Mr. Orville M. Baker, 810 Litchfield, Wichita 3, Kan.

Mrs. Bert Brickell, Saffordville, Kan.
 Mrs. Roy Brizendine, 2214 Maryland, Topeka, Kan.
 Mrs. Peryl Dafforn, Cunningham, Kan.
 Mrs. Helen E. Graham, 500 East Locust, El Dorado, Kan.
 Mrs. Ervin Gruben, 709 College St., Scott City, Kan.
 Mrs. C. R. Harry, Box 84, Home, Kan.
 Mr. Edward S. Justice, 524 South Lorraine, Wichita 16, Kan.
 Rev. David R. Kinish, O.S.B., St. Benedict's College, Atchison, Kan.
 Mr. C. H. Lewis, 4512 State Line Ave., Kansas City, Kan.
 Mr. John J. Ohl, 4001 East 31st, South, Wichita 18, Kan.
 Mrs. B. K. Reeble, 1515 Market St., Emporia, Kan.
 Mrs. J. H. Salley, P.O. Box 72, Liberal, Kan.
 Mr. Lloyd Schoonover, 404 South 5th, Humboldt, Kan.
 Mrs. Thelma Schwinn, 2004 Gold, Wichita 11, Kan.
 Mrs. Beryl L. Smith, 1230 First Ave., East, Horton, Kan.
 Mrs. J. F. Trimpa, Sublette, Kan.
 Mr. Bernard E. Ulrich, 1120 Parallel St., Atchison, Kan.
 Mrs. Bernard E. Ulrich, 1120 Parallel St., Atchison, Kan.
 Mr. Hugo Wall, 1305 North Yale, Wichita 14, Kan.

Region Nineteen

NEW JERSEY AND STATEN ISLAND, N.Y.

RVP, Mrs. Zeh Dennis, Jr., 11 Meadow Road, Chatham, N.J.
 Mrs. A. L. Bellmer, 200 Elmwood Ave., Hohokus, N.J.
 Mrs. Ralph Berkson, Buffalo Hollow Farm, Glen Gardener, N.J.
 Mrs. Eileen Donohoe, Mill Race Farm, Clinton, N.J.
 Mr. Joseph Gatty, 225 Griffith St., Jersey City 7, N.J.
 Mr. Charles S. Gray, 140 Upper Saddle River Road, Montvale, N.J.
 Mr. G. Victor Hallman, 5 West Maple Ave., Moorestown, N.J.
 Mr. Edwin Rundlett, 1 Fairview Ave., Staten Island 14, N.Y.
 Mr. Kenneth D. Smith, Benedict Rd., Dongan Hills, Staten Island 4, N.Y.
 Mrs. K. D. Smith, Benedict Rd., Dongan Hills, Staten Island 4, N.Y.
 Miss Mary Wais, Lebanon R.D., N.J.
 Mrs. F. P. Walther, 474 Upper Mountain Ave., Upper Montclair, N.J.

Region Twenty

COLORADO

RVP, Mr. O. T. Baker, 7650 West 4th Ave., Denver 15, Colo.
 Mr. Lemoine J. Bechtold, 4201 University Blvd., Englewood, Colo.
 Mr. Everett L. Cline, 991 South Columbine, Denver 9, Colo.
 Dr. John R. Durrance, 4301 East Cedar Ave., Denver 22, Colo.
 Mrs. Aileen C. Fluken, 575 East Bates Ave., Englewood, Colo.
 Mrs. Arthur Gray, 240 Hunt St., Salida, Colo.
 Mrs. J. F. Lincoln, 1200 Lake St., Pueblo, Colo.
 Mr. Everett C. Long, 3240 Broadway, Boulder, Colo.
 Mr. Roy P. Rogers, 302 Arapahoe Ave., Boulder, Colo.
 Mr. H. M. Shulenburg, 7606 Robinson Way, Arvada, Colo.
 Mrs. Roy M. Wolf, 1020 Greenwood, Canon City, Colo.

Region Twenty-One

IOWA, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA

RVP, Mr. Robert R. Young, Lake Park East, South Sioux City, Neb.
 Mr. Henry M. Breese, 528 East Nebraska, Pierce, Neb.
 Mrs. J. N. Cox, 112 East Benjamin Ave., Norfolk, Neb.
 Mr. George W. Dubes, 2128 Isabella, Sioux City, Iowa
 Mrs. B. E. Ellis, 118 North Sheridan Ave., Ottumwa, Iowa

Mr. E. A. Emery, 219 North Cecelia, Sioux City, Iowa
 Miss Hazel Grapes, Big Springs, Neb.
 Miss Vivian Grapes, Big Springs, Neb.
 Mrs. Angie Gutekunst, P.O. Box 127, State Center, Iowa
 Mrs. Leon High, Route 2, Lexington, Neb.
 Mr. Byron C. Jenkins, 2305 Clay St., Bellevue, Neb.
 Mrs. Ruth M. Johnson, West Fargo, N.D.
 Mrs. Lucille J. Kavan, 2310 South 49th St., Omaha 6, Neb.
 Mr. W. M. Keeling, 2221 Towle, Falls City, Neb.
 Mr. Robert L. Kehr, 212 West E St., Ogallala, Neb.
 Mr. L. F. Kelly, 3004 S. 31st St., Omaha, Neb.
 Mrs. Joe Macholan, Dorchester, Neb.
 Mr. Glenn S. Millice, Battle Creek, Iowa
 Mr. J. Arthur Nelson, 3131 North 58th St., Omaha, Neb.
 Mrs. J. Arthur Nelson, 3131 North 58th St., Omaha, Neb.
 Mr. G. E. Redman, 8308 Oakwood St., Ralston, Neb.
 Mrs. Ralph E. Ricker, 1516 Ross Ave., Sioux City, Iowa
 Mr. Carl H. Rohman, 3940 South 40th St., Lincoln, Neb.
 Mr. Arthur E. Rowe, Jr., RFD 4, Mason City, Iowa
 Mr. Arnold E. Schliefert, R.F.D. 1, Murdock, Neb.
 Mrs. Olive Skrdla, Atkinson, Neb.
 Mr. Clifford W. Smith, 113 N. University, Vermillion, S.D.
 Mr. W. S. Snyder, 3822 Fourth Ave., Sioux City, Iowa
 Mr. Leo F. Waits, 1222 Judson, Davenport, Iowa
 Mr. Charles G. Whiting, 824 Courtright St., Mapleton, Iowa
 Dr. R. W. Wilder, Stanhope, Iowa

Region Twenty-Two

OKLAHOMA, ARKANSAS

RVP, Mrs. C. E. McCaughey, 5720 N.W. 36th St., Oklahoma City 12, Okla.
 Mr. Wiley Abshire, 805 East Ayers, Route 4, Edmond, Okla.
 Mrs. Davis Biggs, Hughes, Ark.
 Mrs. C. C. Clark, 915 East Main, Sentinel, Okla.
 Miss Eleanor Hill, 1633 East 22nd St., Tulsa 14, Okla.
 Mrs. Dan Holloway, 1626 Birch, Oklahoma City, Okla.
 Mr. Tom Howard, 3904 Victory Circle, Fort Smith, Ark.
 Mrs. John E. Jennings, P.O. Box 594, Wynnewood, Okla.
 Mrs. H. C. Johnston, 1010 North Mill St., Springdale, Ark.
 Mrs. L. M. Limpus, 2401 N.E. 25th St., Oklahoma City, Okla.
 Mrs. H. S. Mayes, Route 1, Ardmore, Okla.
 Mrs. Cecil McCutcheon, 926 N.W. 19th St., Oklahoma City, Okla.
 Mrs. Ernest Penninger, 922 S. 24th St., Fort Smith, Ark.
 Mrs. R. E. Peuter, 1132 North McKinley, Oklahoma City 6, Okla.
 Mrs. H. G. Plato, 2217 N.W. 14th St., Oklahoma City 7, Okla.
 Mrs. R. M. Powell, 103 Cass St., Hot Springs, Ark.
 Mrs. Russell Pryer, 1216 N.W. 33rd St., Oklahoma City, Okla.
 Mrs. Sam Sargo, R.F.D. 7, Box 127, Hot Springs, Ark.
 Mr. Kenneth J. Shaver, P.O. Box 554, Bethany, Okla.
 Mr. Robert H. Shilling, 2811 Guilford Lane, Oklahoma City 16, Okla.
 Mrs. Iris Smith, Hitchcock, Okla.
 Mrs. Cyrus Stanley, 2401 N.E. 24th St., Oklahoma City 11, Okla.
 Mr. L. E. Stoner, 602 North Malone, Enid, Okla.
 Mrs. C. W. Terry, 10901 East 11th, Tulsa, Okla.
 Mrs. James G. True, 1611 Lake St., Lawton, Okla.
 Mrs. Paul Updegraff, 324 Emlyn St., Norman, Okla.
 Mr. Wally Ziminski, 309 Victory Circle, Fort Smith, Ark.

Region Twenty-Three

NEW MEXICO

RVP, Mr. Eugene Sundt, 343 Hermosa Drive, N.E., Albuquerque, N.M.
Dr. E. F. Castetter, 1523 Las Lomas Drive, N.E., Albuquerque, N.M.
Mrs. Lucile L. Miller, 7015 Fourth St., N.W., Albuquerque, N.M.
Mrs. Earl S. Mount, 1312 Vassar Drive, S.E., Albuquerque, N.M.
Mrs. William M. O'Neill, 514 Amherst Drive, S.E., Albuquerque, N.M.
Mrs. Ruth Pressey, 2421 Pueblo Bonito Drive, N.W., Albuquerque, N.M.
Mrs. Eugene Sundt, 343 Hermosa Dr., N.E., Albuquerque, N.M.

OFFICIAL LIST OF HONORARY JUDGES, 1958

Mr. Joseph C. Becherer, 4809 Hamburg St., St. Louis, Mo.
Rev. E. H. Brennan, 15 Clifton Court, Redlands, Calif.
Mr. Charles H. Caldwell, 55 Warren Place, Montclair, N.J.
Mr. Sam Y. Caldwell, W.L.A.C., Nashville, Tenn.
Mr. Gabriel Cannon, 543 Otis Blvd., Spartanburg, S.C.
Mr. Clarence P. Connell, Route 2, Goodlettsville, Tenn.
Mr. R. M. Cooley, 810 North Water St., Silverton, Ore.
Mr. L. W. Cousins, London, Ontario, Canada
Mr. Frank E. Cross, Route 2, Lakeville, Minn.
Mr. Fred DeForest, Route 3, Box 363, Canby, Ore.
Mr. Ed Dickenson, 1555 Claiborne Ave., Shreveport, La.
Mrs. Geddes Douglas, Hill Road, Brentwood, Tenn.
Mrs. William G. Dumont, 1615 Hinman Ave., Evanston, Ill.
Mr. Leo J. Egelberg, 320 No. 13th St., La Crosse, Wisc.
Dr. E. O. Essig, 744 Creston Road, Berkeley 8, Calif.
Mr. Earl E. Evans, R.F.D. 1, Fort Wayne, Ind.
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Mr. Herbert C. Fraser, 48 Elbridge St., Newton, Mass.
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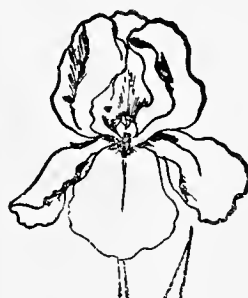
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SUPPLEMENT TO
BULLETIN NO. 149 • APRIL, 1958

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MRS. WALTER COLQUITT
Registrar and Recorder
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The registration fee is \$2.00 for each registration to the total of ten. Above the total of ten, the fee is \$4.00 each. There is no limit to the number that may be registered at this fee. The change of name, from one iris to another, carries a fee of \$4.00 for each transfer.

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 ARCTIC ICE, BERYL GREEN, BETA LIBRA, BON BON PINK, COLORTONE,
 FLOR de ORO, GLORIETA, PACIFIC JEWEL.
 NASS, MRS. CARL W., Rt. 4, Celina, Ohio.
 SWIRLING SNOW.
 NEEL, LAURENCE W., West House, Walton Park, Walton-on-Thames, Surrey, Eng-
 land.
 APRICOT ELEGANCE, HAUGHTY MISS, MAGGA DAN, MIDDAY SUN, NATIVE
 BELLE, PRINCIPAL GIRL, SILVER TIDE.
 NELSON, MRS. RALPH S., (JEANNETTE W.), 906 Foster Ave., Coeur D'Alene,
 Idaho.
 CAUTION LIGHT, LATIN QUARTER, MAGNET, SOARING KITE.
 NESMITH, MRS. THOMAS (ELIZABETH N.), 166 Fairmount St., Lowell, Mass.
 BAR HARBOR, CRYSTAL WHITE, GOLDEN CORONET, IVORY SNOW, MAGIC
 CRYSTAL, PLACID HARBOR.
 NOYD, MRS. WALTER E. (LUELLA), 1501 Fifth St., Wenatchee, Wash.
 APRICOT DANCER, APRICOT DREAM, APRICOT FLARE, COTLET, FLAMING
 BEARD, GREEN TINGE, LILAC PARADE, WENATCHEE KID.
 OHL, JOHN J., 4001 E. 31st So., Wichita 18, Kans. Selector, for originator, HENRY
 E. SASS.
 COMMENDABLE.
 PAYNE, W. A., R. R. 3, Box 180, Terre Haute, Ind.
 CLASSIC MODERN, FALL AND FROST, GAYETY, PRIMA BALLERINA, SMILING
 BEAUTY, THE GREAT MOGUL, VIOLET LUSTRE, WHIFF O' SMOKE, WINGED
 CHARIOT.
 PLOUGH, GORDON W., P. O. Box 117, Wenatchee, Wash.
 APPIAN WAY, BLAKSTOK, CHINA GATE, FLAME KISS, GRAND COULEE,
 HINDU WAND, HUDSON BAY, INCANDESCENT, PALEFARE, PEACH PLUME.
 PORRECA, BERT, 287 Maple St., West Henrietta, N. Y.
 DAPPER DAN.
 QUADROS, CARL A., 1749 Bell St., Sacramento 21, Calif.
 APRICOT PRINCESS, CLARAMINO, LADY ANGIE.
 QUIGLEY, LLOYD, 2910 N. E. 49th St., Vancouver, Wash.
 MONDAY'S CHILD.
 QUIGLEY, MRS. LLOYD, 2910 N. E. 49th St., Vancouver, Wash.
 NATIVE ENCHANTRESS.
 RANDALL, H. J., Sandilands, Brooklyn Road, Woking, Surrey, England.
 KIRKSTONE, MELBREAK, SARAH ELIZABETH.
 RANDOLPH, DR. L. F., 118 Sheldon Road, Ithaca, N. Y.
 ATTICA PARNES, EXOTIC BLUE, ILLYRICA TRIESTE, PSEUDOPUMILA
 ZADAR.
 RECKAMP, BRO. CHARLES, S. V. D., Mission Gardens, Techny, Ill.
 CELESTIAL SNOW, PINK SERENITY.

RECKNOR, MRS. EARL F., 1109 North Oak, Creston, Iowa.
 MOHR LACE.

REES, MISS CLARA B., 1059 Bird Ave., San Jose 25, Calif.
 FIRE-FLURRY, IRISTOCRAT.

REINHARDT, MRS. ROBERT M., (MATHILDA), Rt. 4, Box 499, Waukesha, Wis.
 BLUE SKIRT, CREAM CLOUD, SKIRTS OF PINK, YELLOW SKIRTS.

REYNOLDS, MRS. LEO F. (SERLENA), 4284 Auburn Road, Memphis, Tenn.
 FLUTED HAVEN, GAY HAVEN, MARINE HAVEN.

RICHARD, MRS. J. G., 220 Sunset, Baton Rouge, La.
 ALL FALLS.

RICKER, MRS. RALPH E. (ETHEL), 1516 Ross St., Sioux City 3, Iowa.
 AUTUMN SPICE.

BLACK DELIGHT, SPRING DAWN (as selector for originator, HENRY E. SASS)

RIGGS, HARRY W., 211 N. Grinnell St., Jackson, Mich.
 FREEDOM FESTIVAL, GREATER JACKSON, MAROON SHEEN, WOLVERENE.

RIX, S., Hotel Oceanside, Mount Maunganui, Tauranga, N. Z.
 BILLIE LOUISE, FRANCES ELIZABETH.

ROACH, MRS. GEORGE M., SR. (LAURA B.), 2942 Tyburn St., Los Angeles 39, Calif.
 WHITE PARADE.

ROBERTS, EARL R., R. R. 4, Box 54-C, Indianapolis 27, Ind.
 DANCING BEE, GOLD FLUSH, GUNSMOKE, PARAKEET, SHARKSIANA, WILD CANARY.

REVERTO, (selector for, originator MCKEE).

ROGERS, GLENN, 700 Queen Ridge Dr., Independence, Mo.
 MERRY MOOD, MOJAVE DAWN, MONARCH PASS.

ROGERS, ROY P., 302 Arapahoe, Boulder, Colo.
 MEXICAN HAT.

ROSENFELS, DR. RICHARD S., 1941 Harris Ave., Richland, Wash.
 GOLDEN SHEEN.

RUNDLETT, EDWIN, 1 Fairview Ave., Staten Island 14, N. T.
 LIMBER LASSIE, MOON ROCKET, WHIRLING GIRL.

SAMUELSON, A. A., Rt. 2, Box 94, Pullman, Wash.
 CAPTAIN WHITE, ELFIN ECHO, NORSE MAIDEN, PRINCESS PRIM, ROYAL SPICE.

SCHARFF, JAKE H., 1174 Fountain Court, Memphis 6, Tenn.
 CHIEF CHICKASAW.

SCHIRMER, CARL O., 6104 King Hill Ave., St. Joseph, Mo.
 BREATHLESS, BRIGHT DAY, BUDDY, COLONIAL DREAM, PATROL, TAMMY.

SCHLIEFERT, ARNOLD, R. R. 1, Murdock, Ne br.
 WAVE CAP.

SCHMELZER, MRS. HAZEL E., 731 Edgewood, Walla Walla, Wash.
 CAPTAIN GALLANT, EASTER FRILLS, HOPE DIVINE, KRISS KROSS, NYLON LACE, SURPRISE PACKAGE, TERRY LEE, TRENDARILLE.

SCHORTMAN, W. B., 1221 W. Putnam Ave., Porterville, Calif.
 DANCING SENORITA, GOLD FORMAL, INDIGLOW, POLKA TIME, PURPLE RUFFLES.

SCHREINER, ROBERT, Rt. 2, Box 297, Salem, Oregon.
 AGATINE, AMETHYST FLAME, BLACK ONYX, BROADWAY STAR, CALDRON, FIRE BRIGADE, KARACHI, KING'S CHOICE, ROSEBLOOM, SALEM.

SHILLING, ROBERT H., 2822 Guilford Lane, Oklahoma City 16, Okla.
 OKLAHOMA TWILIGHT.

SIMONSON, MRS. H. A. (DONNA), Rt. 2, Box 268, Barr Road, Port Angeles, Wash.
 BURGANDY VELVET, MOPPET, OLYMPIC BLUE.

SLAMOVA & HAWKINSON, P. O. Box 86, Wildomar, Calif.
 PURPLE PARROT.

SMITH, C & K, Benedict Road, Dongan Hills, Staten Island 4, N. Y.
 BOUNDING MAIN, CASTLES IN SPAIN, DR. BOB, IMPERIAL WOMAN, LOYALTY,
 MOONLIGHT MIST, PEARL MOSQUE, REGAL SPLENDOR, ROBERT J. GRAVES.

SMITH, CLIFFORD W., 113 No. University St., Vermillion, S. D.
 ADORN, ANGIE.

SMITH, MRS. EVA T., Box 483, Lewiston, Idaho.
 GOLDEN MASTERPIECE, HOLY SMOKE, LYNNETTE, RAINIER.

SMITH, K. D., Benedict Rd., Dongan Hills, Staten Island 4, N. Y.
 HIGH AND MIGHTY.

SMITH, WILLIAM ORR, 817 Coats St., Columbia, Mo.
 CLARIKAYO, EAGLE RED, JEAN BELLE, MAYO ROSE.

SNYDER, W. S., 3822 Fourth Ave., Sioux City 6, Iowa.
 BLACK UNIFORM.

STAMBACH, GEORGE M., 336 N. Holliston, Pasadena, Calif.
 WHITE FRAGRANCE.

STERN, SIR FREDERICK, O.B.E., M.C., F.L.S., V.M.H., Highdown, Littlehampton
 Road, Goring-by-Sea, Worthing, Sussex, England.
 TIDLE-DE-WINKS.

STEVENS, MRS. JEAN, Bastia Hill, Wanganui, N. Z.
 FOAMING SEAS, MAORI LEGEND, POLYNESIAN DANCER, PURIRI, SENIOR
 SERVICE.

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 CALVARY.

SUITER, MRS. GLEN (MELVINA), Rt. 5, Caldwell, Idaho.
 APRICOT FLARE, DOROTHY PATCH, MARY SUE, ORANGE CRUSH, SNOW
 BONNETT, VIOLET MOHR.

TEARINGTON, JOHN E., 1234 S. 4th St., Hawthorne, Calif.
 CALIFORNIA CHARM, CALIFORNIA SUNBURST.

THARP, MARY F., 445 North 7th St., Payette, Idaho.
 TOP HELEN.

THEURER, MRS. HERMAN (JULIA), Wellsville, Utah.
 GORDON K., MASTER HERMAN, MR. BAKER.

THOMPSON, MRS. JOSEPH C. (DELORA I.), Rt. 3, Box 553, Bailey Hill Road,
 Eugene, Oregon.
 BLUE COQUETTE, MAY CLOUD.

TIEMANN, ELMER H., Rt. 3, Box 811, Robertson, Mo.
 FRIENDLY PERSUASION, GREEN FRILLS, GREEN GAGE, GREEN LEA.

TOMPKINS, C. W., Rt. 3, Box 440, Canby, Oregon.
 AHOY, BOLERO, CAPTURED HEART, FOND CARESS, FRESCO, HAPPY
 LAUGHTER, JOYOUS SPRING, LIBRETTO, MANY SMILES, MELLO MOOD.

TULLER, ERWIN, 17415 N. W. Walker Road, Beaverton, Oregon.
 SUGAR MOUNTAIN.

VACHE, R. E., 503 N. Tennant, Dallas 8, Texas.
 DAWN PEARL.

VALLETTE, MRS. WILMA, Box 158, Delco, Idaho.
 IMPOSSIBLE, KEWPIE DOLL, LEMON SNOW, PEACHES a la MODE, PEPPER-
 MINT STRIPE, PINK ECHO.

VARNER, D. STEVE, N. State St. Road, Monticello, Ill.
 EARLY AUTUMN, HALLOWEEN, PINK MINK, PURPLE HEART.

VORIS, CHARLES Wm., Rd. 2, Watsontown, Pa.
 CHALK GARDEN, GINGER BREAD, MOONLIGHT MELODY, ORCHID BALLET,
 PEACHY, PRINCESS PAM, RUSTAN, RUTH VORIS, TANGOLD.

WALLACE, M. D., 417 South State, Orem, Utah.

BLUE LACE, CHEROKEE ROSE, CLOUD LACE, DOLL LACE, GRACIOUS
HELEN, GREEN ECHOS, ORIENTAL TAPESTRY, RED SPLendor, TOM
HOWARD.

WARBURTON, MRS. F. W. (BEE), East Main St., Westboro, Mass.

ARROWHEAD, BARRETTE, BERRY PARFAIT, BRASSIE, DERRING-DO.

WATERS, D. G., Elmore, Ohio

FLYING HIGH.

WATKINS, E. & A., 3 Highland St., Concord, N. H.

BARBARA RUTH, DONNA MARIE, LONDON TOWN.

WEDGEWOOD, GEORGE W., P. O. Box 522, Brentwood, Calif.

PORT SAID.

WELCH, WALTER, Middlebury, Ind.

BRIGHT WHITE, FLASHLIGHT, FORTISSIMO, LILLI-FLORA, LILLI-WHITE,
MY DADDY, PASTEL DAWN, RED-LILLI.

WHITE CLARENCE G., W. Sunset Drive, Redlands, Calif.

KING HENRY.

WHITING, MRS. C. G. (AGNES), 824 Courtright St., Mapleton, Iowa.

PINK CHOICE, VIOLET RHYTHM.

WICKERSHAM, D. P., P. O. Box 12, Urbana, Ohio.

ANNE ADAMS.

VILLIAMS, FRANK L., 2167 E. 4500 South, Salt Lake City 17, Utah.

NANCY ANN.

WILLS, JESSE, 1201 Belle Meade Blvd., Nashville 5, Tenn.

BATTLE MORN, DARDANIAN, KRIM TARTARY, ORENDA, SHINING MARK.

WITTEMAN, HARRY, 2110 E. Sonora, Stockton 5, Calif.

CARTHAGE BROWN, CARTHAGE ORCHID.

YUNKER, MRS. EDNA M., P. O. Box 8, Taycheedah, Wis.

ENNA JONES.

ZURBRIGG, LLOYD, 33 College St., Kingston, Ontario.

BERN JUBY, KERRY DANCE, KERRY LEA, KERRY PIPER, LISTOWEL,
QUIVERING FLAME.

ZURBRIGG, LLOYD, selector, introducer for Rev. A. K. Edmison.

DEEP PINK, LEVINA COPELAND, MAYBELLE MARTYN, SULTAN'S CAPITOL.

ADDITIONS to 1956 REGISTRATIONS: CORRECTIONS, etc., to PREVIOUS REGISTRATIONS.

- BARBARA ADAMS (Cahoon), R., 1944; Correction of spelling, Registered as-BARBRA ADAMS.
- BLUE CAMEO (Kelway). TB 36'' M. B1L, Pale Blue self. Helen McGregor X Unknown. Wisley Trials '56. R., 1956.
- BLUE LEGEND (Kelway). TB 36'' M. B1M, Medium Blue self. Deep Velvet X Chivalry. Wisley Trials '55. Kelway '57. R., 1956.
- BRONZE BELL (Schreiner). R., 1955; Correction of spelling, Registered as-BRONZE BELLE. H.M. '57. Schreiner '57.
- CLARUTH (Cleaves); R., 1956; Correction of parentage: Snow Flurry X Blue Shimmer.
- CURTAIN CALL (Muhlestein); R., 1951, changed to FIRST CURTAIN, to avoid confusion, as former was listed by another hybridizer and introduced.
- ENCHANTED (Hamblen). R., 1955, Sdlg.#53-27-1. Re-registered as ENCHANTED VIOLET. ENCHANTED previously registered and not released.
- FORREST HILLS (Kelway). TB 36'' M. BN1, Blue-black self. Wisley Trials '56. R., 1956.
- GOLDEN PLANET (Kelway). TB 34'' EM. Y1, Golden yellow self. Desert Song X Unknown. Wisley Trials '56. R., 1956.
- GOLD LION (Kelway). TB 30'' M. Y5M, Golden tan. Chamois X Unknown. Wisley Trials '56. R., 1956.
- IVORY BLACK (DeForest); R., 1951, completing parentage: Sdlg.:(Her Grace x Sable) x Storm King) X Sdlg.: (Her Grace x Black Forest). Isisnoll '57.
- MELODY FAIR (Kelway). Int.B. 28'' E. R1L, Shell pink self. Edward of Windsor X Cherie. Wisley Trials '56. R., 1956.
- MY SMOKY (Kelway). TB 34'' M. YR2, Pale yellow ground plicata dotted deep rose. Magic Carpet X Unknown. HC, B1S '56, Wisley Trials '56. R., 1956.
- QUEEN TONGA (Kelway). TB 36'' M. Y1M, Medium yellow self. Golden Russet X Unknown. Wisley Trials '54. Kelway '57. R., 1956.
- SMALL WONDER (Douglas-G.); R., 1953, correction of classification: SDB 11'' E-Int.
- TAHOLAH (Gibson). R., 1953; Correction of spelling- Registered as: TABOLA.
- TINKER BELL (Douglas-G.). R., 1954. SDB 13'' E., correction of classification.
- RUSTAM (Kelway). TB 36'' M. V1, Pansy Violet self. Deep Velvet X Lothario. Wisley Trials '54. R., 1956.

1957 REGISTRATIONS

- ADDIE SCHEVE (Freudenburg). TB 36'' M. V1L, pastel orchid self. Chantilly X Hit Parade. 10-9-57.
- ADORN (Smith, Clifford). #56-75. TB 36'' M. Y4, S., deep Butter-yellow; F., Chalk white, bordered yellow. Leading Lady X Lindora. 12-31-57.
- *AETHRA - Gers. N., R., 1934.
- AFRICAN IVORY (Hamacher). #S-4002. TB 36'' M. Y1L, Ivory self with orange beard. Happy Birthday X Apricot Glory. 7-6-57.
- AGATINE (Schreiner-R.). #L-804A. TB 36'' M. R1D, deep mahogany red self. Inbred red Sdlg. X Inbred red Sdlg. 3-25-57.
- *AHOY- name released by Mr. Lapham.
- AHOY (Tompkins). TB 38'' M to L. R1M, bright Carmine red self. Sdlg. 50-116 X Defiance. Fleur de Lis '57. 2-20-57.
- *AIBONITA - Gers. N.; R., 1933.
- *ALEMENE- Gers. N.
- *ALLAGLOW- Gers. N.; R., 1937. Released to Mr. Tompkins.
- ALLEGIANCE (Cook-Paul). #7854. TB 38'' M. B3D, S., Violet Ultramarine; F., Roslyn Blue; beard medium blue, tipped yellow. Dark Boatman X Sdlg. 11752: ((Distance x blue Sdlg.) x Pierre Menard). 7-29-57.

- ALL FALLS (Richard). Foliosa-10''-L. B1M, signal white around gold; all S. & F., identical and equal in size 12-1-57. Collected.
- *ALLURE- Murrell 1927.
- ALMA BUNDY (Buss). #49-11. TB 40'' M. W1, white self. New Snow X Sea Gull. Edenwald '57. 2-23-57.
- ALPINE CHARM (Grapes-V.). #1555. MDB 4'' EE. Y3, S. pale ivory; F. Yellow-green with ivory border; white beard. Nana Sdlg. X unknown. 11-9-57.
- *ALSEIDES- Gers. N; R., 1938.
- *AMBER WAVE- Murrell 1930.
- AMERDA (Hipp). #5412. TB 38'' ML. BW1, Blue-white self; white beard, tipped blue. Snow Flurry X Lake Shannon. 6-3-57.
- AMETHYST FLAME (Schreiner-R.). #M-289-A. TB. V1M, Amethyst-orchid self. Crispette X (Lavanesque x Pathfinder). 7-9-57.
- *AMETHYSTINE- Gers. N; R., 1946.
- AMICUS (Lapham). #9-55. TB 36'' Medium L. YR1D, Rufous self; Chartreuse brown beard. Town Talk X Defiance. 7-22-57.
- *ANDEREYA- Gers. N.; R., 1934.
- ANGIE (Smith-Clifford). #55-56. TB 36'' M. V1D, Imperial purple self. H. C. 1955; Dreamcastle X Chansonette. 6-14-57.
- ANNE ADAMS (Wickersham). TB 34''. R1L, Tourmaline pink self; tangerine beard. Mary Randall X Hall pink Sdlg. Tell's '57. 5-11-57.
- ANTARCTIC (Kelway). TB 34'' M. W1, White self. Helen McGregor X unknown. 11-9-57.
- AOTEA ROA (McCashin-D.). Sib. 24'' M. B1M, Blue self. Madawaska X Ottawa. 7-18-57.
- APPIAN WAY (Plough). #50-39-4. Onco-TB 45'' EM. RV5M, Mineral Violet blending to Phlox Purple; yellow beard. Snow Flurry X Capitola. 7-5-57.
- APRICOT BELLE (Bellmer). #52-A. TB 40'' VL. Y01, Apricot self; tangerine beard. Betty Jane X #48x1: (New Horizon x Pink Formal). 12-31-57.
- APRICOT DANCER (Noyd). #N6-23. TB 25'' L-VL. Y01D, Orange apricot self; apricot beard. June Bride X Temple Bells. 7-3-57.
- APRICOT DREAM (Noyd). #N6-21. TB 29'' M-L. Y01D, Deep apricot self; apricot beard.(((Reveille x New Horizon) x (Apricot Glory)) X Temple Bells). 7-3-57.
- APRICOT ELEGANCE (Neel). TB 42'' M. Y01, Butter apricot self.((Pink Camero x Hi Time) X Golden Eagle). 6-4-57.
- APRICOT FLARE (Suiter). #56-O-1A. TB 34'' E-M. Y01, Apricot self. ((Midwest Gem x Daybreak) X Salmon Sheen). 7-2-57.
- APRICOT PRINCESS (Quadros). #54-52A. TB 36'' E-M. Y01, Apricot self; bright tangerine beard. Sdlg. #5121A: (Casa Morena x Golden Russet) X Mary Randall. 8-31-57.
- APRIL BLUE (Darby). SDB 12'' E. B1, Blue self, few brown reticulations at haft. Saffron Charm X April Morn., 10-10-57.
- *AQUARELLE- Murrell 1929.
- ARCTIC FLAME (Fay). #56-13. TB 32'' M. W1, pure white self; tangerine beard. H. C. '57. Lipstick X Sister Sdlg. ($\frac{1}{4}$ Snow Flurry, $\frac{1}{4}$ New Snow, $\frac{1}{2}$ Pink Sdlg.). 2-21-57.
- ARCTIC ICE (Murray-G.). #80-M-5. TB 36'' LM. B1L, Icy Blue self, no markings; pale yellow beard, almost white. Angel Glow X #6-48: (Purissima x Shining Waters). 9-28-57.
- ARROWHEAD (Warburton). #A-503. MDB 4'' EE. B1L, pale blue self, deeper fall marking in form of arrowhead; orange throat; white beard. Carpathia X Sulina. 12-31-57.
- ARUBA (Greenlee). Int. TB 24'' E. YV4M, S., yellow; F., Rose-mauve, flashes of Gold leaf. (Golden Eagle x I. Mellita) X Twilight Sky. Greenlee '57. 2-28-57.
- ASPIRATION (Beardsley). #BG. TB 44'' M-L. G1L, S., Chartreuse; F., between chartreuse and Pea-green. Parentage unknown. 7-11-57.

ATHLONE (Kelway). TB 40'' E. R1L, Shell pink self. Edward of Windsor X Cherie. 11-9-57.

ATTICA PARNES (Randolph). Acq. #P-8. MDB 5'' E. V1D, dark violet purple, near self; matching blue beard. Collected clone of *I. attica* from Mt. Parnes near Athens, Greece. 16 Chromosomes. Collected by L.F. & Fannie R. Randolph. 7-8-57.

AUSTRIAN SKY (Darby). SDB 12'' E. B3, Blue self with darker blue thumbprint and sky blue standards. Welch #H-503 X Blue Ensign. 10-10-57.

*AUTUMN COLORS- Gers. N.; R.; 1943.

AUTUMN SPICE (Ricker). #R-9-54. TB 38'' M. Y5D, S., deep rich amber; F., Amber, lighter than S., touch of Aster Violet at tip of orange beard. Welcome Guest X Thotmes III. Ricker '57. 4-5-57.

*AZALEA TINT- released by DeForest; Sdlg. #52-6 named CORAL KING.

BAINBRIDGE (Greenlee). SDB 12'' E. W1, Snow White self, bright blue spot on each fall. ((#10942 x pumila) x Thisbe) X ((#10942 x pumila) x Thisbe). Greenlee '57. 3-30-57.

BARBARA RUTH (Watkins). #51-62. TB 38'' M. Y1L, Lemon cream self, yellow border on S.&F., matching yellow beard. ((Snow Flurry x Flora Zenor) X (Overture x Pink Lace selfed)). 12-31-57.

BAR HARBOR (Nesmith). #53-36A. TB 38'' M. B5, S., Sea Blue; F., blending of Sea Blue & Aconite Violet, smoothly finished deep blue-purple. #48-44C:(Barbara Adams x Gulf Stream) X #49-41A:(Jane Phillips x Sylvia Murray). 12-12-57.

BARRETTE (Warburton). #AB-506. MDB 6'' EE. Y1, Clear yellow self. Baria X Yellow pumila Sdlg. (1/2'' flower). 12-31-57.

BARTOW LAMMERT (Benson-C.). #54-18A. TB 34'' M. W1, Pure snowy white self. H.C. '57. Spanish Peaks X Cloudless Sky. 6-28-57.

BATTLE MORN (Wills). #148-54. TB 36'' L. R1M, bright medium red self; gold beard. Carnton X ((Action Front) x ((Piute) x Hermitage x Hernani))). 5-30-57.

BAUBLE (Hager-White). SDB 11''; E. Y1, yellow self. Yellow Frills X diploid tall Sdlg. involving True Delight, Pallida, Mauvine and others. 12-10-57.

BAYOU BABE (Hipp). #5473. TB 36'' M. R1M, near China Rose self; tangerine beard. Cloud Cap X Sdlg. 6-3-57.

BAYOU BELLE (Hipp). TB 30'' M. O1M, Orpiment Orange self; tangerine beard. (Cloud Cap x Sdlg.) X Sdlg. 6-3-57.

BAYOU MOON (Hipp). #5464. TB 38'' M-L. Y1M, Cadmium yellow self; orange beard. Rememberence X Snoqualmie. 6-3-57.

BEACH PLUM (Lowry). #L-50-8. TB 34'' M. RV1D, Rich plum self, soft brown flush on hafts; small bright blue blaze at tip of beard. Syringa X Plum Pretty. 9-19-57.

BEAUTY ON PARADE (Marx-W.). #56-156. A. Japanese 30'' M. W1, S., white, thinly edged Amaranth; F., white, center stippled Amaranth, border Amaranth. Parentage unknown. Marx '57. 1-2-57.

BEAU VIOLET (Lowry). #L54-22. TB 38'' E. V1D, Deep violet self, lighter flush on hafts; Yellow beard. First Violet X Violet Harmony. 9-19-57.

BELTON BEAUTY (Frey). #54-1. TB 38'' EM. V1M, S., Medium violet; F., same with white haft area. Snow Flurry X Chivalry. 4-13-57.

BERN JUBY (Zurbrigg). #52-56-A. TB 34''. R1, Red self, slightly bitone. Display X Quechee. 4-13-57.

BERRY PARFAIT (Warburton) #B-401. Int. B 18'' E. V5, S., Purplish-pink blend, yellow edging; F., Purplish-red blended, chartreuse border; brown beard. Pogo X Drum Major. 12-31-57.

BERTHA SCHEER (Freudenburg). TB 34'' EM. Y1L, Cream self with gold veining, haft to tips of both S. & F. (Hit Parade X Chantilly). 10-9-57.

BERYL GREEN (Murray-G.). #404-53. TB 38'' M. G1, Beryl Green self, clean haft; Yellow beard-slight blue tip. #4-49:(Green Pastures x Appointee) X (Green Chance x Top Brass). 9-28-57.

- BETA LIBRA (Murray-G.). #34-A-54. TB 36'' EM. G1, Sea Green self, clean hafts; Lemon yellow beard, tipped blue. (Green Chance x #68-49: (Appointee x Caroline Burr)) X Greenback. 9-28-57.
- BILLIE LOUISE (Rix). A.Louisiana M. V1D, Dahlia purple with triple signal patch. 5-22-57.
- BILLOWY CLOUD (Cassebeer). #676. TB 30'' M. W1, Pure white self; beard inconspicuous, no yellow. White Sprite X White Parchment. 11-11-57.
- BLACK DELIGHT (Ricker for Sass). #R-53-129. TB 36'' M. BN1, Blue black, beard same. Black Forest X Sdlg. 48-4: (#44-41 x Ebony Queen). Ricker '57. 4-5-57.
- BLACKNESS (Lewis-C.). TB 30'' M. N1, Black, no markings; dark beard. Solid Mahogany X Deep Velvet. 11-14-57.
- BLACK ONYX (Schreiner-R.). #L-518-1. TB 36'' M. NV1, Rich Black-violet self. ((#F-127 x After Midnight) X (Storm King x Black Forest)). 12-31-57.
- BLACK RUFFLES (Hall-D.). #56-52. TB 35'' M. N1, Ruffled black self. (Black & White Sdlg. X Black Sdlg.). 12-31-57.
- BLACK UNIFORM (Snyder). TB 36'' LM. N1D, Ebon self, of mahogany undertone. Sdlg. L-48 X Sdlg. O-49. 8-17-57.
- BLAKSTOK (Plough). #51-159-4. TB 33'' EML. V3, S., Imperial purple; F., Dark purple, brown hafts; Indian Yellow beard. (Sdlg. 46-19:(Amigo x Sdlg.) X Red Torch). 7-5-57.
- BLAZE AWAY (Babson). #B-99-8. TB-29'' M. Y5M, S., Amber yellow; F., same, tinted deeper at edges, deep maroon-red feathered signal patch around beard. Mexico X Tobacco Road. 11-27-57.
- *BLAZE CREST- Gers. N.; R.; 1937.
- BLUE COQUETTE (Thompson-D.). #15-53-7. TB 27'' M-L. B1L, Opaque light steel blue self; F., undertone of cream; beard, waxy blue color of S. and styles. White Sdlg.: (?blue x Gudrun) X Chivalry. 7-23-57.
- BLUE GLAD (Freudenburg). TB 36'' M. B1M, Lobelia blue self. Sky Ranger X Cloud Castle. 9-30-57.
- BLUE LACE (Wallace-M.). #56-528-1. TB 31'' M. B3M, S., M. blue, some purple infusion; F., M. blue, brushed yellow at hafts. Chivalry X Blue Debut. 8-5-57.
- BLUE MESA (Benson-Z.G.). #1-25-1. TB 48'' M. B1, Blue self; yellow beard, tipped white. Helen McGregor X Blue Ensign. 2-23-57.
- BLUE MOTIFE (Linse-J.). #Nacap 21-P. TB-Onco. 38'' M. B5M, S., Verbena Violet, Wisteria Blue; F., same, blue based; blue tipped beard. New Snow X Capitola. 6-28-57.
- BLUE SHADE (Graham for Sass). Border Iris 24''. B1M, Medium deep blue self. 12-21-57.
- BLUE SKIRT (Reinhardt) #55-10. TB 38'' M. W4, S., pure white; F., Powder Blue blending to pale blue at end of falls; white beard, tipped blue. Snow Flurry X Madame Maurice Lassailly. 11-6-57.
- BLUE SPICE (Crandall). #56-38. TB 48'' M. B1D, dark blue self. Cloud Castle X #48-52:(Hoogiana x Shining Waters). 7-25-57.
- BOLD BLUE (Lawson). #54-28. TB 36'' M. B3, S., Marine blue; F., slightly darker; orange beard, Great Lakes X Katherine Fay. 12-31-57.
- BOLD BUTTERCUP (Brown-Rex). #165-16. TB 36'' E-M. Y1M, Buttercup yellow self, faint white touch at tip of beard. Good News X Top Flight. 11-18-57.
- BOLERO (Tompkins). TB 38'' M. Y5D, Brilliant Copper blend. ((Aria x Defiance) x Rocket) X (Rio Valley x Glistening Copper). Fleur de Lis '57. 2-20-57.
- BON BON PINK (Murray). #9-C-54. TB 33'' L-M. R1L, Pure pink self, lighter at haft, no markings; Pink beard. Talley Ho X (#26-52:(Cherie x Pink Cameo) x Pink Formal). 9-28-57.
- BORDER KING (Marx-W.). TB 48'' L. YR5M, S., Medley of gold, rose, blue and bronze; F., Reddish purple tinted bronze. Parentage lost. 3-23-57.

- BOUNDING MAIN (Smith, C. & K.). #54-3. TB 39'' E. to L. B1M, Medium blue self. Valley Mist X Serene Valley. 9-28-57.
- BRASSIE (Warburton). #AB-311. SDB 14'' E. Y5, S., Chrome yellow; F., Chrome yellow faintly overlaid green; yellow beard. #SPC-2:(Spindrift x Pink Cameo) X pumila Sdlg. (yellow self). 12-31-57.
- BREATHLESS (Schirmer-C.). #278-B. TB 36'' M. R1L, Light pink self. Radiation X Ballerina. 10-8-57.
- BRIDAL SWEET (DeForest). #57-9 S. TB 36'' M. R4L, S., Pink; F., White; pinkish beard. Frances Kent X Pink Sdlg. 12-31-57.
- BRIGHT DAY (Schirmer-C.). #TB-94. TB 40'' M. Y4L, S., light yellow; F., White suffused yellow, with gold border. Goldbeater X Midwest Gem. 10-8-57.
- BRIGHT EYES (Darby). Int. B 16'' E. YB4, Lemon yellow self with darkish blue thumbprint on F. Greenish yellow at haft, no reticulations. Welch #H-503 X Missouri Night. 10-10-57.
- BRIGHT WHITE (Welch). #N-535. MDB 7'' E. W1, Pure white self; white beard, no haft color. Green Spot X J-537: (Bouquet x G-522:(Finance x Fairy)). 10-3-57.
- BRIGHT WISH (Crandall). #50-27. TB 36'' E-M. V1D, S., Purple; F., Purple, white at haft covered with purple network. Orchid Lady X Capitola. 7-25-57.
- BROADWAY STAR (Schreiner-R.). #L-721-1. TB 38'' M-L. YRV4, S., smooth cream; F., Rose with magenta cast. (Maytime x Extravaganza) X Sib. of Opal Beauty. H.M. '57. Schreiner '57. 3-16-57.
- BROOKS (Lawson). #54-27. TB 36'' M. B1, Cornflower blue self; pale blue beard. Great Lakes X Katherine Fay. 12-31-57.
- BROWN BANTAM (Jonas). #1004-1. SDB 10'' E. V4, S., Lilac-purple; F., light Garnet Brown. #707:(Samovar x Austrian pumila yellow) X #735:(#48-4 (tall pink) x I. cretica). 12-27-57.
- BUDDY (Schirmer-C.). #X-23. TB 34'' M-L. NV1D, Blackish-purple self- Black Forest X Storm King. 10-8-57.
- BURGANDY VELVET (Simonson). #604. MDB 6'' E. R1D, Wine-red self; brown beard. Carpathia X unknown. 12-31-57.
- *CALDRON- Schreiner-R., N.; R., 1953.
- CALDRON (Schreiner-R.). #K369-A. TB 36'' M. OR1D, Vivid Coppery-red self. (Ethiop Queen x Ranger) X (Garden Glory x Cordovan). Schreiner '57. 3-16-57.
- CALIFORNIA CHARM (Tearington). #PW-552. TB 30'' M. V3, S., Sea Lavender violet; F., darker than Spec. Violet, some brown at haft. Neglecta. Pinnacle X Wabash. 8-22-57.
- CALIFORNIA SUNBURST (Tearington). #PV-552. TB 40'' M. Y1, Chinese Yellow self. Prairie Sunset X Veiled in Mystery. 8-22-57.
- CAVALRY (Strange, R.T. Jr.). #54-1. TB 34'' M. BW1, White self with blue cast; Blue beard. Blue Ensign X Spanish Peaks. 7-26-57.
- *CANARY BIRD- Perry N.; Released.
- CANARY BIRD (Kelway). TB 38'' M. Y1L, Lemon yellow self. Berkley Gold X unknown. Wisley Trial '57; Kelway '57. 12-31-57.
- CANARY SONG (Brown-Rex). #B6-4. TB 48'' EE-M. Y1L, light Canary yellow self, near white area at tip of lemon yellow beard. Snow Flurry X Pink Sdlg. 11-18-57.
- *CANARY WARBLER- Gers. N.; R., 1947.
- CANDELITA (Corey). #7-M-1. TB 36'' EM. Y5M, Bright golden bronze. Caldera X Carpenter Sdlg. #46-63. 1-30-57.
- CANDY BABE (Hickenlooper). #3-56. TE 33'' M. W1. Blue white self. Snow Flurry X Chivalry. 8-30-57.
- CAPTAIN GALLANT (Schmelzer). #555-H-57. TB 36'' E-L. R1, Red self, on orange side, no purple; orange-brown beard. Tompkins #52-107 X Privateer. 6-18-57.
- CAPTAIN WHITE (Samuelson). #S1-5-1. TB 40'' EM. W1, White self with tint of blue. Snow Flurry X Sdlg. FX2-6:(from Helios, Purissima, Jenkins and Hoogiana). 11-12-57.

CAPTURED HEART (Tompkins). TB 40'' M-L. YV2L, Cream ground plicata, violet-pink markings; red beard. (Overture x Hit Parade) X Surrender. Fleur de Lis '57. 2-20-57.

*CARDELING- Gers. N.; R., 1948.

CARTHAGE BROWN (Wittman). #50-21. TB 30'' L. Y1D, Amber brown self, darker haft and border markings; brown beard. Mexico X Tobacco Road. 7-15-57.

CARTHAGE ORCHID (Wittman). #19-50. TB 32'' M-L. B4, S., Light blue; F., light blue, overlaid white and purple, haft lined; yellow beard. Snow Flurry X California Peach. 7-15-57.

CASTLES IN SPAIN (Smith, C. & K.). #55-39. TB 40'' M-L. R5M, Rose blend with slight picotee edge. (Snow Flurry x Chantilly) X East Indies. 8-13-57.

CAUTION LIGHT (Nelson- Jeannette). #54-61-1. TB 40'' M-L. Y1M, Buttercup Yellow self; wide orange beard. Truly Yours X Dolly Varden. 6-30-57.

CELESTIAL SNOW (Bro. Charles). #54-23. TB 40'' M. W1, ruffled white self. Snow Flurry X Celestial Blue. H.M. '57. Mission Gar. '57. 1-19-57.

CHALK GARDEN (Voris). #SP-Pin-5350. TB 35'' M-L. W1, Pure white self; white beard. Pinnacle X Spanish Peaks. 7-3-57.

*CHARLES LYNCH- Gers. N.; R., 1937.

CHARMING MORN (Darby). SDB 12'' E. WB4, S., pure white; F., White with blue thumbprint shaded off to white edges. Saffron Charm X April Morn. 10-10-57.

CHARTREUSE CHALICE (Brown- Dr. Percy). TB 34''. GY1, Chartreuse self; brown veins at haft; orange beard. New Horizon X Tinted Porcelain. 7-19-57.

*CHARTREUSE GOWN- Gers. N.; R., 1948.

CHEROKEE ROSE (Wallace). #56-11. TB 32'' M. VR5L, Orchid and Rose blend. Ballerina X (Pink Formal x Heritage). H.C. '57. 8-5-57.

CHIEF CHICKASAW (Scharff). #52-28-86. TB 35'' E-M. R1D, Red-brown self. Cordovan X ((Firecracker x ?) x (Ola Kala)). 7-12-57.

CHINA GATE (Plough). #53-138-35. TB 40'' EM. W4, S., White with pale Canary Yellow edges; F., Orange buff, flushed pink; tangerine beard. Gay Paree X Palomino. 7-5-57.

CHINESE LANTERN (Fay). #53-114. TB 40'' M. Y1D, deep yellow self; tangerine beard. Mary Randall X Techny Chimes. Fay Gard. '57. 2-21-57.

CHIPETA (Benson-Z.G.). #46-5. TB 32'' M. Y5D, Spanish Raisin, Cordovan X Argus Pheasant. 3-23-57.

CHO CHO SAN (Housley). #VV-163-I. Int. B 15'' E. Y2, S., Butter-yellow, purplish flecking; F., Butter-yellow, all-over purplish-brown veining. Gibson Girl X Lieut. de Chavagnac. 7-26-57.

CLARAMINO (Quadros). #53-25A. TB 30'' E-M. Y4, S., goldish yellow, laced; F., White ground, gold border, laced. Clara B X Palomino. 8-31-57.

CLARIKAYO (Smith, Wm. O.). #30. TB 40'' M. RV1D, Fuschia-purple self; style marked orchid; beard yellow. Claribel X Jean Cayeux. 8-31-57.

CLASSIC MODERN (Payne). #146; A. Japanese. 44'' M. W4, S., White edged hyacinth violet; F., Royal purple-Hyacinth violet blend, large white center, radiating veins. 3 petals, Ai-fukurin X Sdlg. #8:(Ai-fukurin x Nishiki-yama). 8-28-57.

CLEAN SWEEP (Craig-Tom). TB 40'' E. W1, cold white self. ((Sleighride sib. x Sleighride sib.) X (Sleighride sib. x Sleighride)). 6-28-57.

CLOUD LACE (Wallace-M.). #56-486-1. TB 36'' EM. B1L, Light gray-blue self. Cloud Castle X Blue Debut. 8-5-57.

*CLOUDS AT DUSK- Gers., N.; R., 1945.

COLONIAL DREAM (Schirmer-C.). #T-26. TB 36'' M. RY5L, S., Pink and yellow; F., Pink suffused yellow. (Hall #44-39 X (Aztec Copper x Midwest Gem)). 10-8-57.

COLORTONE (Murray-G.). #583-53. TB 38'' M. Y5M, Peachy beige with pink infusion; light tangerine beard; no markings. #80-48:(Inspiration x Melitza)X Pretty Pink. 9-28-57.

*COLUMBINE - Murrell 1930.

COMMENDABLE (Ohl for Sass). TB 38". Pale amoena, falls solid light blue. Parentage not given. 12-21-57.

COPPERITA (Greenlee). MDB 4" EE. R1, Copper Red self; yellow beard. (Papoose x Blondie) X Welch #J-509. 2-16-57. Greenlee '57.

COPPER SKY (DeForest). #52-16. TB 38" M. Medium brown, blended orange, self; orange beard. Brown Sdlg. X Brown Sdlg. Irisnoll '57. 2-21-57.

*CORAL KING- #54-10 transfered to #52-6: first named Azales Tint.

CORAL KING (DeForest). #52-6. TB 37" M. R1L, Azalea pink self; heavy coral pink beard. (Carabella x Pink Sensation) X Cloudcap. Irisnoll '57. 2-21-57.

COTLET (Noyd). #N6-22. TB 26" M-L. Y5M, Light Apricot self; deep apricot beard. ((Reveille x New Horizon) x (Apricot Glory)) X Temple Bells. 7-3-57.

COUNTRY CUZZIN (Brown-Opal). #6-15A7. TB 35" E-M. Y4, S., Yellow apricot; F., White banded Y. apricot; heavy tangerine beard. ((Hit Parade x Pink Formal) x (Mary Randall)) X Palomino. 7-12-57.

*CREAM BLUSHED- Gers. N; R., 1947.

CREAM CLOUD (Reinhardt). #57-15. TB 36" M. Y1L, Large cream self; light lemon beard. Moonlight Sonata X On Guard. 11-6-57.

CRIMSON MAPLE (Craig-Timmy). #T-57-9. TB 30" L. R1D, Crimson Maple-Rubient-Indina Red-Algerian R. self; effecting blue beard. Sdlg. (Firebright x sib.) X (Firebright x sib.). 6-28-57.

CRYSTAL WHITE (Nesmith). #49-87B. TB 35" M. W1, white self; beard tipped white. Snow Flurry X 45-52A:(Sierra Snow x #48-62D). H.M. '57. Fairmount '57. 4-26-57.

*DAFFODIL - Murrell 1929.

DAINTY JEWEL (Freudenburg). Int. B. 26" EM. WV5, White shaded orchid, orchid veining to edges of S. & F., hair-line orchid edge. Sky Ranger X Cloud Castle. 10-9-57.

DANCING BEE (Roberts). #A-303. SDB 11" E. GY4, S., Greenish-ivory cream; F., Lavender-blue, cream hafts; cream beard. Brite X unknown. 6-26-57.

DANCING SENORITA (Schortman). #3107. TB 38" M-L. V1, S., violet, yellow center patch; F., Violet, veined darker; haft brown, Berkley Gold Sdlg. X Berkley Gold Sdlg. 6-18-57.

DAPPER DAN (Porreca). TB 34" M-L. R1D, Burgandy red self; Yellow beard, elongated 1 1/4" beyond normal, curled upward at end, small ivory patch on each side of beard, some gold at haft. (Weirdie x Easter Bonnet) X Joseph's Mantle. 7-19-57.

DARDANIAN (Wills). #180-54. TB 36" M. R5L, medium Tan-pink blend, golden area around bright gold beard. (Bryce Canyon x Centurian) X Well Content. 5-30-57.

*DARK LOVELINESS - Gers. N.; R., 1942.

DARM STRANGER (Branch). #5619. TB 32" M. V1D, Deep purple; F., Deep black-purple. (Black Forest x Sable) X Sable Night. 6-24-57.

DATELINE (Jonas). #530-1. Int. B 17" E. W4, S., White; F., Bright yellow. ((Lord Dongan selfed) X (Tall blue x pumila). 12-31-57.

DAWN CREST (DeForest). #57-9S. TB 34" M. R4, S., Pink; F., Yellow. Frances Kent X Pink Sdlg. 11-27-57.

DAWN PEARL (Vache). #V-55-1. TB 40" M. Y4, S., Cream; F., White with lavender blushed center. Pink Opal X unknown (probable tetraploid). 9-7-57.

DEAR MOM (Buss). #49-42. TB 40" M. W2, White Plicata, lavender markings. Gypsy Baron X Tieton. Edenwald '57. 2-23-57.

DEEP CANYON (Abell) #53-42-3. TB 34" M. V5, S., Amethyst -violet with Plum Purple, garnet Brown; F., Victoria Violet, shading to color of S. Damascus Blade X Grand Canyon. C.C., So. Calif. A.I.S. Show, 4-57. 6-1-57.

DEEP PINK (Zurbrigg for Edmison). #53-9. TB 36". R1L, Deep pink self; white

- haft, pink red beard. (TM3 x TM5) X Pink Papa. 1-19-57.
- DELICATESSE (Cayeux). TB M. Y4, S., light greenish yellow; F., White, edged pale yellow. Ormohr X Bellerive. 'Petit' Vitry sur Seine '57. 10-10-57.
- *DEMETER- Gers. N.; R., 1940.
- DENNIS BURNS (Burns-H.). #55-109. TB 36'' M. Y4, S., Tan; F., Blue with 1/2'' tan border. Sdlg. 52-38:(New Horizon x Spring Sunshine) X Sdlg.:(Gilt Edge x Late Sun). 12-31-57.
- DERRING-DO (Warburton). #B-301. SDB 14'' E. V4, S., purplish-blue; F., deep purplish-red, pinkish-lavender border; lavender beard. Pagan Midget X unknown. 12-31-57.
- DIAMOND NIGHT (Marx-W.). A. Japanese 46''; VL. W5, purple overtones overlaid on white and very light blue ground; styles blue, tipped purple. Gold signals. Unknown. 1-2-57.
- DIXIE PEACH (Gaulter). #56-30. TB 38'' M. Y5, Apricot with white blaze at haft; tangerine beard. Memories X Mary Randall. 6-19-57.
- DODGE CITY (Hays). TB 37''. B1D, S., Navy blue; F., same with white spot, veined navy. Unknown. 6-9-57.
- DOLL LACE (Wallace-M.). #56-145. TB 30'' M. RW1L, pale pink white self; S., and style heavily laced. Cathedral Bells X Dolly Varden. 8-5-57.
- DONNA MARIE (Watkins-E. & A.). #52-51. TB 38'' M. BW1, Blue white self, deeper blue flush toward center. ((J. Phillips x ((H. McGregor x Belmont) x Great Lakes)) x Sea Blue) X (H. McKenzie x J. Phillips sib.). 12-31-57.
- DONNA SCHAAN (Becherer). TB 36'' M. W5. Inspiration X Sdlg. 7-28-57.
- DORA DEY (Army). A. Louisiana; 36'' M-L. V3M, S., Viola; F., Purple Heather; Yellow signal. Bayour Sunset X Blue gigantescaerulea Sdlg.. H.M. '57. Int. 1955. 7-6-57.
- *DORINA- Gers. N.; R., 1935.
- DOROTHY PATCH (Suiter). TB 36'' E-M. B1, Blue Self. (Cahokia x Sun Lakes) X Lady Ilsa. 7-2-57.
- DR. BOB (Smith-C. & K.). #54-1. TB 32'' E. W1, Ruffled pure white. Valley Mist X Serene Valley. 8-13-57.
- EAGLE RED (Smith-Wm. O.). #20. TB 34'' M. YR5, S., Gold and wine, copper sheen; F., Wine and copper; Styles same as S.; yellow beard. Red Douglas X Golden Eagle. 8-31-57.
- EARLY AMERICAN (Jones-B.). #271-2. TB 34'' M. Y5, Caramel tan self, no markings. (Howard Weed x Susitna Sunset) X Inca Chief. 12-31-57.
- EARLY AUTUMN (Varner). #57-104. Y5, S., tan; F., tan with gold in center. (Cherie x Floradora) X Party Dress. 12-2-57.
- EASTER FRILLS (Schmelzer). #16-H-56. TB 38'' M. V1L, Lavender self. Dream-castle X Arlene Wood. 4-13-57.
- EBBTIDE (Craig-Ivan). #I.C. 56-4. TB 38'' E. Y3, S., pale Chartreuse Y.; F., Seafoam yellow, to near white, pale chartreuse Y. at margins. (Charmaize x (Joseph's Mantle x Rich Raiment)) X (Mariposa Mia x (Mt. Washington x Joppa Parrot)). 6-28-57.
- ELFIN SCHO (Samuelson). #W22-3)2. TB 36'' EM. R3L, Light pink bitones, cream base. (Sdlg. SBX x Pink Sensation) X ((Idanha x Ramses) x Pink Sensation)). 11-12-57.
- ELFIN MOTLEY (Fothergill). Calif. 12'' E. YR4, Chrome yellow with Ruby red flush on falls. I. *innominata* X I. *douglasiana*. A.M., R.H.S. '57. 10-10-57.
- ELFIN PRINCE (Fothergill). Calif. 10''; E. V1, Fuschia self. I. *innominata* X I. *douglasiana*. P.C., RHS '57. 10-10-57.
- ELIZABETH ARDEN (Kelway). TB 34'' EM. R1L, Flamingo pink self. Loomis V.20 X Cherie. Wisley Trial. 12-31-57.
- ELIZABETH H. (Hall-B.). TB 30'' M. R1L, Pink self. May Hall X Paradise Pink.

7-17-57.

EL KHOBAR (Greene). #27-55. TB 36'' M. NR1, Black-maroon self. Red Mesa X (Pretty Pink x Cherie). 10-17-57.

*EMBERGLOW-Etc.; (Gers.N.); R., 1948.

EMBERGLOW (Hall-D.). #54-35. TB 34'' M. R1L, Rose-pink self. Rose-pink Sdlg. X Rose-pink Sdlg. 12-31-57.

EMMA COOK (Cook-P.). #11155. TB 34'' M. S., White; F., white with 1/2'' border Royal Purple; beard, white on outer end, yellow under style arm. Sdlg. #12552: ((blue Sdlg. x (Progenitor x Shining waters)) x (Distance x (Progenitor x Shining Waters))) X Sdlg. #14152: (Dreamcastle x (blue Sdlg. x (Distance x (Progenitor x Shining Waters)))). 11-23-57.

EMPEROR'S ROBE (Marx-W.). A. Japanese, 32'' M. W2, Violet stippling and veining on white ground; orange signals. Unknown. 1-2-57.

EMPIRE BUILDER (Burns). #5503. MDB 8'' E. Y1, dark yellow self; yellow beard. From sdls. 1-19-57.

ENA JONES (Yunker). #56-25-E. TB 38'' M-L. YO1L. (May Hall x Mary Randall) X Sdlg. 9-21-57.

ENCHANTED VIOLET (Hamblen). #53-27-1. TB 36'' E-M. BV5L, Grayed blue and orchid blend. (Helen McGregor x Radiation) X Palomino. H.C. '57. 12-31-57.

*EPHESIA- Gers. N.; R., 1936

*ERMINIA- Gers. N.; R., 1945.

EXOTIC BLUE (Randolph). #51-223-5. TB 28'' M. VB1L, light lavender-blue self, with darker center; brown beard, tipped blue. (Mata Hari x Black Forest) X Wedgwood. H.C. '57. 7-8-57.

EXTEMPORE (Beardsley). #3-135-2. Border 27'' M-L. S., Maize to buff; F., White ground stippled, bordered rosy-lavender Midwest X Chasseur. 7-11-57.

FAIR LUZON (Hamblen). TB 38'' M-L. R1L, Pink self, with lacing. (Cherie x Radiation) X June Meredith. 12-31-57.

*FAIRY CASTLE- Gers. N.; R., 1947.

*FAIRY PRINCESS (Murrell 1931).

FALL AND FROST (Payne). #727. A Japanese, 6 petals, 30'' M. VB1L, Pale Violet-blue self with frosted effect; white halo; styles cream, tinted pale violet. Sdlg. #296:(Kosui-no-iro x Sdlg. #142) X Unknown. 8-28-57.

FANCIFUL (DeForest). #55-4 S. TB 38'' M. YR5L, Peach-apricot. *Pink* midrib; F., Blended apricot and *PINK* Sdlg. #50-12 X Pink Formal. Irisnoll '57. 3-4-57.

FAR GOLD (DeForest). #57-103 S. TB 38'' M. Y2, S., Deep gold, no markings; F., Cream white, brown stitching. (Sdlg. #5-47B x Rodeo) X Honor Bright. 12-31-57.

FASHIONETTE (Brown-Opal). #6-17-B2. TB 36'' M. V3M, S., Lilac purple; F., Pansy Violet; Chinese coral beard. ((Hit Parade x Pink Formal) x (Mary Randall)) X Mary Randall. 7-12-57.

*FESTOON- Etc.; Gers. N.; R., 1936.

FESTOON (Hall-D.). #54-70; TB 35'' M. R5L, S., pink; F., pink tinged apricot. Pink Sdlg. X Pink Sdlg. 12-31-57.

FIESTA STAR (DeForest). TB 37'' M. Y5M, Shot silk-like blend of golden tan and pink. Thotmes X Cloudcap. 2-13-57.

FILAGREE (Melrose). #TY-56-1. TB 34'' M. Y1, Yellow self. Truly Yours X Lilac Lane. 12-10-57.

FIRE BRIGADE (Schreiner-R.). #1282-3A. TB 36'' EM. R1D, Crimson red self. (Ranger x Redward) X (Pacemaker x Orelia). Schreiner's '57. 3-16-57.

FIRE-FLURRY (Rees). TB 46''. R3M, S., Erythrite Red; F., Ruby Red; beard yellow. Snow Flurry X Firedance. Bull. #145 '57. 1-30-57.

FIRENZE (Brown-Opal). #6-20-A1. TB 40'' M. V1M, Spectrum Violet self; tangerine beard. (Esquire x Chivalry) X Mary Randall. 6-17-57.

- FIRST BORN (McCord). #519-52. TB 36'' E-M. W2, fancy plicata, white ground, stippled lavender. San Francisco X Jake. 12-31-57.
- FIRST CURTAIN (Muhlestein). #51-11A. TB 38'' M. R1L. Pink self. Party Dress X Pink Fulfilment. Tell's '57.
- FIRST LILAC (Greenlee). Int. B 18'' E. V1L, Lilac self; yellow beard. ((Sdlg. #10942 x pumila) x Cloud Castle) X Sib... Greenlee '57. 2-28-57.
- FLAME KISS (Plough). #53-138-38. TB 40'' EM. Y4L, S., White; F., Dresden yellow; Tangerine beard. Gay Paree X Palomino. 7-5-57.
- FLAMING BEARD (Noyd). #N5-65. TB 26'' L. Y5M, Peachy Apricot self; Red-tangerine beard. ((Buffawn x Pink Sdlg.) x New Horizon) X Salmon Shell. 7-3-57.
- FLASHLIGHT (Welch). #0-503. MDB 4½'' EE. Y3, S., Med. yellow; F., Bright gold, yellow border; white beard. Blue Spot X Hanselmayer. 10-3-57.
- FLINTITE (Morgan). #53-9. TB 38'' M. B1L, Pale blue self; white beard, tipped blue. Danube Wave X Spanish Peaks. 11-5-57.
- FLOR de ORO (Murray). #91-52. TB 32'' LM. Y1D, Deep gold self; golden yellow beard; no markings. Glittering Gold X (#27-48:(Rose Bowl x Golden Spike) x Ola Kala). 9-28-57.
- FLUTED COPPER (Kleinsorge). #441. TB 30'' M. Y1D, Med. toned Golden Brown self, golden haft. Cascade Splendor X Spanish Fandango. Cooley's '57. 3-4-57.
- FLUTED HAVEN (Reynolds). #48-EA. TB 35''. W1, Very white self. S. & F. fluted. Snow Flurry X Cloud Castle. H. C. '57. 5-22-57.
- FLYING HIGH (Waters). #MB-53. TB 36'' M. B1M, Med. Blue self; light lemon beard. Cahokia X Keene Valley. H.M. '57. Longfield '57. 4-13-57.
- FOAMING SEAS (Stevens). #4/el94. TB 46''. B1L, very pale blue self, slightly deeper at hafts; pale blue-white beard. Jane Phillips X (((Calpurnia x Morocco Rose) x Summit) x (Sister of Summit x Tropic Moon) x Chicory Blue). 12-31-57.
- FOND CARESS (Tompkins). TB 38'' M. R1L, Deep pink self; red beard. (Apricot Supreme x Golden Eagle) X Pink Perfection. Fleur de Lis '57. 2-20-57.
- FOREVER SPRING (Gaulter). #56-16. TB 38'' M. VR5M, Med. Lavender-rose, blended brown hafts and petal tips. Lavanisque X Pathfinder. 6-19-57.
- FORTISSIMO (Welch). #P-540. MDB 8'' E. OY1M, Orange-golden yellow self; long. reddish-orange beard with long spur. Butch X Fior del Mondo. 10-3-57.
- FORT OSAGE (Grinter). #18-51. TB 30'' M. R1D, Rich red self. #51-49 X Technicolor. 6-27-57.
- FRANCES ELIZABETH (Rix). A. Louisiana 24'' L. VRO1, Purplish-bronze self, dark mulberry purple spine in standard; clear gold signal. Unknown. 8-7-57.
- *FRED STUBBS- Cassebeer, R., 1954. Changed to White Swirl.
- FREEDOM FESTIVAL (Riggs). #1-C-16. TB 34'' M. W4, S., Canary yellow; F., White edged yellow; yellow beard. #1-A-12:(Ola Kala x Easter Gold) X Green Pastures. 6-27-57.
- FREE GOLD (Miess). #103. TB 30'' M. Y1, Sunflower yellow self. Ola Kala X Sdlg. #547B:(Prairie Sunset x Fortune's Favor). Syllmar '57. 2-2-57.
- FRESCO (Tompkins). TB 39'' M. RV2, , Burgandy or wine ground plicata, gold markings. (Consolation x Craig Sdlg.:(China Maid x Tiffany)) X Ebony Echo. Fleur de Lis '57. 2-20-57.
- FRIEDA J. (Freudenburg). TB 40'' EM. Y5L, Yellow and orchid blend; orange beard; lace edges. (Chantilly x Majenica) X (Chantilly x Easter Bonnet). 9-30-57
- FRIENDLY PERSUASION (Tiemann). #57-1. TB 36'' EM. R3L, S., Pink; F., Apricot pink. Palomino X Flirtation. 12-31-57.
- FRILLY TILLIE (Hays). TB 36'' W2, S., White; F., Silver white, dotted light lavender around edges. Unknown. 6-9-57.
- FRONT ROW (Linse). #Spellcap 05. TB-Onco 26'' M. V5M, Mauve-rose self, ruby signal patch; brown-gold beard, slight crest at tip. Spellbound X Capitola. 6-28-57.
- FRUSTRATION (Holleyman). Giganticaerulea type 54'' M. V1L, Violet self, with

- gold base; F., have added brown tone, purple line from signal to tip. Storm Signal X Wheel Horse. 5-15-57.
- FULBRITE (Lowry). #L52-12-A. TB 40'' L. Y1D, Full yellow self. Fairday X Golden Hawk. 9-19-57.
- GABRIEL'S HORN (Graham for Sass). TB 36'' M. Y1D, Saffron yellow self; heavy beards; Unknown. 12-21-57.
- GALA STAR (Knowlton). #52-47A. TB 32'' M. Y4L, S., Bright yellow; F., White edged yellow; orange-yellow beard. Sunray X Solid Gold. H.C. '55. 9-21-57.
- GARDEN GOSSIP (Leland). #M-54-128. TB 34'' M-L. Y5D, S., light brown; F., very dark brown. Aria X Bryce Canyon. 11-23-57.
- GAVOTTE (Beattie). #44-67-FK. TB 32'' M. Y5, S., Lemon yellow, suffused peach; F., Lemon yellow, paling toward center; orange-tangerine beard. Muhl. Sdlg. #44-67 X Frances Kent. 12-31-57.
- GAY BUTTERFLY (Mertins). #2. Onco-bred 28'' E. RV1D, S., Blackish red-purple; F., Matthew Violet, honey-yellow throat. Butterfly Wings X Unknown. 7-8-57.
- GAYETY (Payne). #525. A. Japanese, 6 petals 48'' M-LM. RV1D, Dull magenta purple and Amethyst -violet halo & veins. Pansy-violet styles. Sdlg. #226:(Sdlg. #226 x Sdlg. #110) X Sdlg. #82:(Ai-fukurin x Osamura-miyo). 8-28-57.
- *GAY GIRL-(Murrell 1931).
- GAY HAVEN (Reynolds). #61-LA. TB 38''. RV1M, Rosy Petunia; bright yellow beard. Snow Flurry X Rose Sails. 5-22-57.
- GAYMOHR (Green). TB-Onco. 36''. B1L, Light blue self. WmMohr X Winter Carnival. 6-19-57.
- GAY STRIPES (Fielding). Onco-bred. 16''. B5L, Silvery Blue-gray with stripes of Blue on F.; S., clear. Two un-named Onco-breds. 7-18-57.
- GAY TEXAN (Collier). #55-3-1. TB 33'' EE-M. R1D, Dark Raspberry self; bright tangerine beard. ((Melitza x Honey Chile) x Golden Eagle) X Muhl. Sdlg. #48-34: (#46-41C x Loomis V 20). 8-26-57.
- GEORGIA MAESER (Crosby). #C-55-4B. TB 36'' EM-L. Y1M, Flaring yellow with lighter area in F., Beard same color. ((#46-2-4 x #46-2F) x Song of Songs) X Pink Enchantment. Sdlg. Cup, Utah Iris Show '57. 7-10-57.
- GIANETTA (Benbow). MDB 4'' E. RV1, Rosy violet self. Dwarf Sdlg. X Pumila Sdlg. 10-7-57.
- GIGGLES (Corey). #6-P-1. TB 32'' EM. R1L, Pink; red-coral beard. Party Dress X Paradise Pink. 1-30-57.
- GILSTON GOLD (Fletcher). TB 40'' EE. Y1M, Golden yellow self. Red Amber X Rocket. 10-10-57.
- GILSTON GULF (Fletcher). #53-63Y. TB 38'' M. B1M, Medium blue self. Helen McGregor X Sib to Gilston Grange. Wisley Trials '57. 12-31-57.
- GINGER BREAD (Voris). #VBC 555. TB 36'' M-L. O1D, "Gingerbread brown" self. Bryce Canyon X Veishea. 7-3-57.
- GINGER PEACHY (Burns). #5620. TB 34'' M. O5, F., lighter at haft. Cascade Splendor X Mellowglow. 1-19-57.
- GIRL FRIDAY (Douglas). #1304-A. TB 34'' M. R1ML, Rose-pink self; Rose-pink beard. Paradise Pink X Pink Formal. 10-23-57.
- GLACIER QUEEN (Awalt). #154-A. TB 36''. W1, Flaring white self. Snow Flurry X Golden Madonna. 7-19-57.
- GLITTERING PEARLS (Bartholomew). #53-24-B. TB 40'' M. W1, Warm white self, gold on hafts; gold beard. Desert Song X Bellerive. 8-30-57.
- GLORIETA (Murray). #515-53. TB 42'' LM. O5L, Apricot self; tangerine beard; no markings. Sdlg. #154-49:(Jasper Agate x Nightengale) X Apricot Glory x Melody Lane). 9-28-57.
- GLOWING RUSSET (Harrison). #46-43. TB 36'' M. YR5M, Golden Russet; F., two shades darker than S., Golden Russet X Rocket. 9-24-57.

- *GLOWING SUNSET- Gers. N.; R., 1937.
 GOLD CORSAJE (Corliss). #57-S-15. Spuria 38'' L. Y1M, Buttercup yellow self. Larksong X Corliss Sdlg.. 7-9-57.
- *GOLD DUST- Gers. N.; R., 1938.
 GOLD DUST (Hall-D.). #56-30. TB 35'' M. Y1, Golden self. Sdlg. #54-63 X Sdlg. #54-60.. 12-31-57.
- GOLDEN BATH (Corliss). #57-A-23. Spuria 34'' M. Y1D, Saffron yellow self, Golden orange. Larksong X Wadi Zem Zem. 7-9-57.
- GOLDEN BELLS (Hall-D.). #57-54. TB 34'' M. Y3, S., golden; F., Cream edged golden. Sdlg. #54-20 X Golden Garland. 12-31-57.
- GOLDEN BUTTERCUP (Goodman). #20912. TB 38'' M. Y1D, Deep gold self. Solid Gold X Golden Shell. 7-4-57.
- GOLDEN CORONET (Nesmith). #54-56-A. TB 37'' M. W1, S., White; F., White with Indian yellow epaulets on upper part. (Helen McKenzie x Sdlg. #52-4-A) X Patrician. 12-12-57.
- GOLDEN GLADIATOR (Craig-Jack). #B-73. Oncobred 28'' M-L. Y1M, S., Deep Barium yellow; F., Deep Barium yellow, haft peppered pin-point brown. Lady Mohr X Goldbeater. H.C. '57. 5-26-57.
- GOLDEN GRAAL (Hamacher). #S-50-X. TB 40'' E. Y1D, Deep yellow self; orange beard. Mohr and More X White Hills. 7-6-57.
- *GOLDEN IVORY- Miess N.; R., 1948.
 GOLDEN IVORY (Miess). #90-E. TB 30'' ML. Y1L, Cream fused with yellow at haft edges. (Spring Romance x Chantilly) X Pink Formal. Syllmar '57. 2-2-57.
- GOLDEN JOPPA (Linse). #JP-3. TB-Onco. 35'' M. Y4M, S., Creamy white; F., Medium Straw Yellow, green at center of F.; darker beard. (Gatesii form). ((Extravaganza x Red Torch) x Sib) X Joppa Parrot. 6-28-57.
- GOLDEN LADY (Combs). Spuria. 54''. Y1L, Pale yellow self, large, ruggled. Wadi Zem Zem X White Heron. Combsie's '56. 12-31-57.
- GOLDEN MASTERPIECE (Smith-Eva). #56-1. TB 34'' VL. Y1D, Bright yellow, white blaze on F.; orange beard. Mary Randall X Truly Yours. 9-8-57.
- GOLDEN SHEEN (Rosenfels). #528-18. TB 36'' M. Y1D, Golden yellow self; orange beard. Ola Kala X Golden Eagle. 9-28-57.
- GOLD ENSIGN (Hall-T.W.) #Y-122. TB 32'' EM. Y1, deep yellow self. Sdlg. #Y-79; (Spun Gold x Sdlg. #Y-4) X Sdlg. #Y-52:(Ming Yellow x Sdlg. #Y-26). 11-20-57.
- GOLDEN YEARS (Hall-D.). #57-50. TB 35'' M. Y3, S., deep yellow F., Cream edged yellow. Sdlg. #54-20 X Golden Garland. 12-31-57.
- *GOLD FLAKE- Murrell 1933.
 GOLD FLUSH.(Roberts) #A-502. MDB 4'' EE. Y1, Barium yellow self, F., flushed deep golden Y.; white beard. Carpathia X Unknown. 9-4-57.
- GOLD FORMAL (Schortman). #689. TB 38'' EM. Y1M, Solid gold self. ((Snow Flurry x Midwest Gem-Sdlg.) x (Tobacco Road x Berkeley Gold-Sdlg.)) X Solid Gold. 5-11-57.
- GOLD STITCHES (Gibson). #14-1-A. TB 43'' EM. Y2, S., Daffodil yellow, splashed brown & Indian red; F., small white patch edged yellow, flecked I. red & brown. Sdlg. #56-9A X Chocolate. 5-13-57.
- GORDON K (Theurer). #2. TB. GY1M, Deep golden Chartreuse self. Inca Chief X Dolly Varden. 10-1-57.
- GORGEOUS JORJE (DeForest). #54-24. TB 34'' M. O5, Deep orange apricot self; tangerine beard. Sdlg. #51-4-B X Lapham C-7. 12-31-57.
- GRACIOUS HELEN (Wallace-M.). #56-91-1. TB 36'' EM. Y1M, Yellow self, white blaze at base of beard. (Sdlg. #5213:(Snowqualmie x Gold Ruffles) x (Midwest Gem x Hall's 4210)); X Sdlg. #48-119 (deep butter Y.). 8-5-57.
- GRAND COULEE (Plough). #53-76-7. TB 34'' ML. YR5M, S., pale tan and rose blend; F., pale tan, rose and yellow; bright yellow beard. Futuramic X Mary

Randall. 7-5-57.

- GRASSHOPPER (Greene). #840-56. TB 39" M. YG1, Chartreuse green self. Green Meadows X (Appointee x Green Pastures). Gold Cup, S. Calif. show '57. 10-15-57.
- GREATER JACKSON (Riggs). #1-C-40. TB 34" M. R1L, S., Venetian Pink; F., lighter than S.; tangerine beard. Fantasy X Paradise Pink. 6-27-57.
- GREEN SCHOS (Wallace-M.). #55-181-1. TB; 34" M-L. YG1M, Yellow chartreuse self. (Sdlg. #48-48:(Morocco Rose x (Golden Eagle x SQ 72)) x (Muhl. Sdlg. 4648) X Sdlg. #4951: (pink). 8-5-57.
- GREENFRILLS (Tiemann). #57-2. TB 40" M. YG1, Chartreuse self. Green Lea X (Green Lea x Zantha). 12-31-57.
- GREEN GAGE(Tiemann). #57-3. TB M. GW1, Greenish-white self. Green Lea X (Snow Flurry x White Sentry). 12-31-57.
- GREEN LEA (Tiemann). #52-1. TB 30" M. YG1, Chartreuse self. Snow Flurry X (Beotie x Golden Hind). 12-31-57.
- GREEN TINGE (Noyd). #N4-1. TB 29" M. W1, White self, backs of falls green, green-gold at haft. Dixie Belle X Spanish Peaks. 7-3-57.
- GUNSMOKE (Roberts). #154. TB 34" EM. RVO5, Rose-mauve-brown blend; tangerine beard. Muhl. Sdlg. #50-6 X Sweet Marie. 9-4-57.
- HALLOWEEN (Varner). TB 32" ML. YN4, S., orange-yellow; F., dark blue "black". (Extravaganza x Rumba Rose) X (Helen Collingwood x Louise Blake). 12-2-57.
- HAPPY LAUGHTER (Tompkins). TB 39" M-L. YR4L, S., cream; F., Watermelon-rose. (Shannopin x Persian Prince) X (Shannopin x Mist Glow). Fleu de Lis '57. 2-20-57.
- *HASSAN (Murrell 1930).
- HAUGHTY MISS(Neel). TB 36" M. R1M, Old Rose self. Majenica X Lancaster. 6-4-57.
- HEAD HUNTER (Craig-i'om). #55-78. TB 36" L-Re. R3D, S., Hydrangea red to Mineral red; F., Tapestry red, Mineral red border. Tom-Tom Sib X (Savage x Molten). 6-28-57.
- HENRY SHAW (Benson-C.). #56-6. TB 36" M. W1, Pure white self, snowy white beard, green throat. Cliffs of Dover X Marion Marlowe. 7-8-57.
- HER HIGHNESS (Levingston). Giganticaerulea 40" E. W1, White self, light green style arms; raised chrome-yellow signal patch. Coll. '50; H.M. '57. 7-1-57.
- HIDDEN FIRE (Graham for Sass). TB 40" M. R1M, Delft Rose; bronze infusion at hafts. Unknown. 12-21-57.
- HIGH AND MIGHTY (Smith-K.). #51-58. TB 42" L. B1M, Med. blue self; flower 8" wide-5½" high. Keen Valley X Pierre Menard: (split pollen). 8-13-57.
- HIGH VELDT (Kelway). TB 34" M. R5, Coffee Red. Ranger X Unknown. 12-31-57.
- HINDU WAND (Plough). #53-140-4. TB 32" EM-L. Y5L, S., blend of light buff, straw Y. and chartreuse; F., same with dark brown hafts. (Sdlg. #51-119-3:(Tobacco Road x Casa Morena) x Futuramic) X Innes' Sdlg.:(Ruth x Rainbow Room). H.C. '57. 7-5-57.
- HOLD THAT TIGER (Lauck). TB 32 M. Y2, Deep golden yellow, F., veined mahogany, to ½" of edge; orange beard. parentage lost. 6-15-57.
- HOLY SMOKE (Smith-Eva). #54-58. TB M. V5L, Smoky lavender-grey. Jane Phillips X Thotmes III. 8-12-57.
- HOOSIER BEAUTY (Crossen). #57-1. TB M. R3M, S., pale rose; F., Deep rose. Pink Talcum X Mary Randall. 6-9-57.
- HOPE DIVINE (Schmelzer). #45-H-57. TB 40" ML. V1L, Orchid-lavender self. Lynn Langford X Sdlg. #3-55:(Mary Randall x Arlene Wood). 6-15-57.
- HORNED SKYLARK (Austin). #J-Y-41. TB 52" M-L. Y3, S., clear light yellow; F., cream, edged light yrlow; prominent bearded horn; bright yellow beard. (JS-M-176B x 638) X Twilight Sky. Rainbow '57. 1-2-57.
- HUDSON BAY (Plough). #53-127-54. TB 30" M-L. R4D, S., Rosy brown; F., Rhodamine Purple, border same as S. Sdlg. #5-65-36:(Quest x Cliffdell) X Sdlg.

#51-129-4: ((Cascade Splendor x Honeyflow) x Twenty Grand). 7-5-57.

ICE GROTTO (Miller). #D7-3. TB 38'' M. White flushed pale blue. Kanchenjunga X Cefn Bryn. 10-7-57.

*IDE CAMMERER- (Gers.N.) R., 1937.

ILLYRICA TRIESTE (Randolph). Acq. #H-48A. Miniature TB 22'' E. B1M, Medium lavender blue self. Coll. clone of *I. illyrica* from hillside overlooking Trieste, Italy. Coll. by L. F. & Fannie R. Randolph. 7-8-57.

IMAGINATION (Branch). #5560. TB 28'' E. V1M, Rosy-lilac self. Mary Randall X Sdlg. #5360:(New Horizon x (Harriet Thoreau x D.Hall Sdlg. 4539)). 6-24-57.

IMPERIAL WOMAN (Smith-C. & K.). #55-61. TB 41'' M-L. BV1, Smooth Blue-violet self; pale violet beard. Smith Blue Sdls. 52-27 X 51-9. 8-13-57.

IMPOSSIBLE (Vallette). #54-1. Border 24'' M. Y1L, S., pale lemon-ice, opening from purple buds; F., same color, deeper at haft. Purple shows through when first open. Sdlg. #52-5:(Florentine x Spindrift) X Pretty Pansy. 6-18-57.

INCANDESCENT (Plough). #53-14-10. Onco. TB 26'' EM. Y5, S., Straw Yellow; F., Dark brownish yellow with molasses red radiating from beard; yellow-brown beard. Inca Chief X Asoka of Nepal. 7-5-57.

*INDIAN PRINCESS- (Gers N.) R., 1936.

INDIGLOW (Schortman). #5156. TB 34'' M-L. VB1, Violet-blue self; orange to blue beard. Sdlg. #036:(Sable x Destiny) X Chivalry. 5-20-57.

INNUENDO (Babson). #F-21-3. TB 35'' M. Y5, S., Brown tinged lavender; F., Beige washed rose-lavender, deeper at haft; beard, bronze tipped yellow. Figurine X Savage. 11-27-57.

INTRIGUE (Hinkle). #F-6-A. TB 36'' E. B1, Ruffled blue-self, darker veining entire length of F.; blue beard. Regina X Zara. 5-30-57.

IRISH WHIM (Muhlestein). #57-109. TB 40'' M-L. GW1, Green-white self. Purissima X Azure Lake. 12-31-57.

IRISTOCRAT(Rees). TB 38'' M-L. Y1L, Cream, light yellow at haft. ((Loomis SQ-72 x Midwest Gem) x Ruffled Bouquet) X Hall's 42-10. Bull. 145, '57. 1-30-57.

*ISKA- (Gers.N.) R., 1937.

ISLE OF WIGHT (Goodman). #16327. TB 44'' M. W1, Pure white self. Paratrooper X Cahokia. 7-4-57.

IVORY SNOW (Nesmith). #54-50 A. TB 37'' M. W1, Pure white self; Beard tipped white. Crystal White X H.F.Hall Sdlg. #W-63 (white). 12-12-57.

*JACAMER- (Gers.N.) R., 1935.

JADE QUEEN (Knopf). #1700-H. TB 36'' L. GB4, S., Willow Green; F., Sea Blue, edged same as S.; hafts Uranium green. Pretty Quadroon X Maid of Cotton. 8-21-57.

JEAN BELLE (Smith-Wm.O.). #31. TB 40'' M. V1D, Light iris-purple self; style arms the same; deep orange beard; markings purple & cream. Claribel X Jean Cayeux. 8-31-57.

JEAN SIBELIUS (Benson-C.). #55-17. TB 36'' M. B1D, Pure, Steel Blue self. (Spanish Peaks x Tosca) X Starlift. 7-8-57.

JET PETITE (Jonas). #677-1. MDB 4'' E. N1, self, blue-black beard. Sdlg. #278-1: ((*I. pumila* x *I. mellita*) x self) X Carpathia. Longfield '57. 2-6-57.

JINGLES (Hanlon). Border I. 26'' M. Y1L, Light golden yellow; Ivory cream haft. Goldbeater X Siskin. 2-6-57.

*JOHN TRUMBULL- (Gers.N.) R., 1937.

JOYOUS SPRING (Tompkins). TB 39'' E-M. W2M, Ivory ground plicata, marked blue violet. New Hope X (Angelface x Lovelace). Fleur de Lis '57. 2-20-57.

JUDEAN SILVER (Austin). #X-8-O. Oncocyclus 15'' EE. W5, Silvery-white veined and dotted in black, prominent black signal. Pure Onco hybrid (parentage lost in fire). Rainbow '57. 1-2-57.

- JUNE DECKER (Freudenburg). TB 34'' L. YR5L, Buff with rosy cast, gold veining; deep orange beard. Hit Parade X Chantilly. 10-9-57.
- JUNE SONG (Crandall). #56-6B. TB 40'' M. W1, Pure white self, touch of chartreuse at haft; white beard, tipped chartreuse. (National White x Spring Sunshine) X Nightingale. 7-25-57.
- JUNGLE BIRD (Mayberry). #52-2-1. TB 39'' M-L. V5, S., Amaranth; F., Amaranth blended claret and violet. Muhl. Sdlg.: (Miogem x Campfire Glow) X Muhl. Sdlg.: ((Aubanel x Mayday) x Lady Albright). 12-31-57.
- JUNGLE ROSE (Mayberry). #52-2-2. TB 39'' M-L. R1M, Ole Rose self. Muhl. Sdlg.: (Miogem x Campfire Glow) X Muhl. Sdlg.: ((Aubanel x Mayday) x Lady Albright). 12-31-57.
- *KANGREY (Gers. N.) R., 1934.
- KARACHI (Schreiner-R.). #L-712-1. TB 35'' M-L. RV2D, S., Rich red purple plicata; F., rich red purple with bold splash of white center of F. Port Wine X Bazaar. 12-31-57.
- KAREN MOHR (Knopf). #1700-QQ. Onco TB 30'' VL. W2, S., white stitched red-violet; F., white stitched blue-violet; red-violet hafts; thick brown beard. Lady Mohr X Lela Dixon. 8-21-57.
- KAZAK (Craig-Tom). #56-1487. TB 38'' E-VL. Y2D, S. Sulphur Y. stippled Kazak; F., Sulphur Y. with sharp, broad stippled margin of Kazak. (Joseph's Mantle x Rich Raiment) X (Joseph's Mantle x Rich Raiment). 6-28-57.
- KENTISH CORDELIA (Miller). #D13-11. TB 36'' M. R1M, Rose self; tangerine beard. Benton Cordelia X ((Dreamcastle x Loomis V20) x Strathmore). 10-7-57.
- KERRY DANCE (Zurbrigg). #14-2. MDB 7'' E. V1, light self, white beard. pumila type X Pink Formal 1-19-57.
- KERRY LEA (Zurbrigg). #14-1. SDB 10'' E. V1, Violet self. pumila type X Pink Formal. Avonbank '57. 1-19-57.
- KERRY PIPER (Zurbrigg). #14-3. MDB 7'' E-Re. V1, dark self, some haft markings. pumila X Pink Formal. Avonbank '57. 1-19-57.
- KEWPIE DOLL (Vallette). #57-5. MDB 6'' VE-E. Y4L, Cream, edging & haft central part, ox-blood red. Pink Cameo X Sulina. 6-18-57.
- KING HENRY (White-C.). #60-55. Onco-bred 18''. R5, Deep cool red, with ground of rose dust; entire flower veined with plum to Port wine. Unknown. 6-29-57.
- KING'S CHOICE (Schreiner-R.). #L-393-1. TB 38'' M-L. B1D, rich, midnight blue self. Top Hat X (Black Belle x Blue Glow). Schreiner's '57. 3-16-57.
- KIRKSTONE (Randall). TB 38'' M. Tarn Hows X Gypsy Classic. Randall '57. 12-16-57.
- KISSIE (Army). A. Louisiana 30'' EM. R1L, Laelia Pink self; no signal. Peggy Mac X Bayou Sunset. 7-16-57.
- KIWI BRUNETTE (McCashin-D.). #249. TB 36'' M. RY1D, deep red-brown; bright orange beard. (Casa Morena x Copper Medallion) X Sunset Blaze. 7-18-57.
- KIWI LEMONADE (McCashin-J.). TB 38'' M. Y1M, deep lemon, no markings; Lime-green blaze on center of F.. (Ola Kala x Searchlight) X Moonlight Sonata. 7-18-57.
- KRIM TARTARY (Wills). #4453. TB 35'' M. Y5, Golden tan blend; bright gold beard. Spanish Main X Golden Plover. 5-30-57.
- KRINKLED GOLD (McDonald). TB 36'' M. Y4, S., bright yellow; F., yellow with white blaze in center of F. Parentage unknown. 12-9-57.
- KRISS KROSS (Schmelzer). #37-H-57. TB 34'' M. V1L, Light lavender-pink self; with deep lavender-pink crossing. (Mary Randall x Arlene Wood) X Mary Randall. 6-18-57.
- LADY ANGIE (Quadros). #51-40A. TB 40'' E-M. V1, Violet self, white area below beard; beard, white tipped. Snow Flurry X Chivalry. 8-31-57.
- LADY DUNSANY (Mertins). #3. TB 30'' M-L. V3D, S., Hyacinth purple; F., Dark violet, clouded Blackish-violet; yellow beard, pointed white. Esquire X Unknown. 7-8-57.

- *LADY HUDSON- Murrell 1931.
- LADY IN WAITING (Marx-W.). #56-173. A. Japanese 32'' M-L. W1, White self, edged narrowly with lavender pink; styles white tipped orchid. Unknown. Marx '57. 1-2-57
- *LADY MORVYTH- (Murrell 1932).
- LANTERNE MAGIQUE (Cayeux). TB M. VR4L, S., Lilac-pink; F., Old Gold. Cascade Splendor X Pink Cameo. 10-10-57. Cayeux '57.
- LATE APRICOT (Muhlestein). #51-11-F. TB 34'' LM-VL. OY1M, Medium apricot self. Party Dress X Pink Fulfilment. Tell's '57. 2-23-57.
- LATIN QUARTER (Nelson-J.). #54-39-1. TB 42'' M-L. Y4D, S., gold; F., dark red-brown, edged told. Gypsy X Gaylord. 3-30-57.
- LAVENDER PATCH (Hutchison). TB 36'' M. V3, Lavender and purple bi-tone. Transmere X (Shah Jehan x Lagos). Orpinton '57. 6-4-57.
- LEISA (Hays). TB 39''. R1L, Light pink self; tangerine beard. Unknown. 5-30-57.
- *LEMON CREAM (Gers. N.) R., 1948.
- LEMON SNOW (Vallette). #57-9. MDB 6'' VE-E. Y4L, S., pale cream, fades white; F., Lemon, fine greenish lines near beard. (Salmon Fuchsia x ?) X (Sulina x ?). 6-18-57.
- LEROY L (Lipiec). #54-25. TB 40'' E. BN1, Blue-black self. Black Hills X Cloudcap 7-28-57.
- LEVINA COPELAND (Zurbrigg for Edmison). TB 34'' V3, Orchid-purple. TM5 X Tally-Ho. 4-13-57.
- LIBRETTO (Tompkins). TB 40'' M-L. V1L, Pale Wisteria Violet self. (Spanish Peaks x One Clear Call) X Blue Throat. Fleur de Lis '57. 2-20-57.
- *LIEBSCHEN (Gers.N.) R., 1938.
- LIGHT AT DAWN (Marx-W.). #56-153. A Japanese 32'' VL. W2, White, narrow border of blue, outer areas stippled same. Styles white, touched Wood Violet at tips. Unknown. 1-2-57. Marx '57.
- LILAC BOUQUET (Crosby). #C-56-12C. TB 40'' EM-L. V1L, Flaring lilac self; light yellow beard. Swan Ballet X Mount Emmons. 6-15-57.
- LILAC PARADE (Noyd). #N5-23. TB 29'' M-L. V1M, Persian Lilac self; tangerine beard. (Plough Sdlg.:(Prairie Sunset x Cigarette) x Tell Sdlg. #47-31: (Sib. Pink Formal) X Mary Randall. 7-3-57.
- LILLIE BELL (Leland). #M54-132. TB 38'' M-L. V3, S., light orchid; F., dark orchid. Columbia X Blue Shimmer. 11-23-57.
- LILLI-FLORA (Welch). #M-529. SDB 12'' L. Y1L, Lemon-ivory self;; bright yellow beard. Fairy Flax X Unknown. 12-31-57.
- LILLI-WHITE (Welch). #L-561. SDB 12'' L. W1, pure white self; white beard. (Blue Shimmer x Carpathia) X J-538: (Bouquet x (Fiancee x Fairy)). 12-31-57.
- LIMBER LASSIE (Rundlett). #C-414. Table I. 22'' M. W1, white self; no markings. Two for Tea X (Two for Tea x Williamson 2062) : a table iris. 11-12-57.
- LISTOWEL (Zurbrigg). Int. B 19'' E. Y1, Golden yellow self. Edmison Sdlg.(Snoqualmie x Prairie Sunset) X (#46-2-34 x Sound Money). Avonbank '57. 1-19-57.
- LITTLE BLACKSMITH (Jones-B.). #B-56. MDB 9'' M. RN3, S., Red-black; F., Black; orange beard. Unknown. 12-31-57.
- LITTLE ROSY WINGS (Douglas-G.). SDB 11'' E. Int. R3, Red bitone, Orange Glow X pumila Yellow. 10-23-57.
- LOIS MARIE (Heagney). TB W1, White self. SQ 72 X Golden Eagle. 7-19-57
- *LOLONA (Gers.N.) R., 1942.
- LONDON TOWN (Watkins-E. & A.). #53-38. TB 36'' M. B1L, Pale hyacinth-blue self, darker at center; styles, tip of beard same deep color. Ice Carnival X Land's End. 12-31-57.
- LOVELY LARK (Abell). #55-26-1. TB 36'' M. BV3L, S., Blue lavender, flushed Blue-violet; F., Blue lavender with Blue Violet flush, pale lavender edges. (Sea Lark X High Azure. 12-31-57.

- LOVE POTION (Craig-Tom). TB 40'' Y4, S., Honey-cream; F., Rich maroon. 6-28-57.
- LOYALTY (Smith-C. & K.). #55-23. TB 32'' E-M. B1, Very near pure blue. Dolly Lorey X Precious Days. 8-13-57.
- LYNNETTE (Smith-Eva). #54-114. TB 32'' M. VB1, Lavender-blue self; small white blaze on F., Sunray X Raspberry Ribbon. 9-8-57.
- MAGGA DAN (Neel). TB 42'' M. B4, S., Faint blue; F., White with cream at haft. New Snow X Chivalry. 4-6-57.
- *MAGIC CRYSTAL- Nesmith, R., 1956. Sdlg. #49-878, changed to CRYSTAL WHITE.
- MAGIC CRYSTAL (Nesmith). TB 38'' M. W1, Pure white; beard white, tipped pale blue. Sister of: The Citadel X Crystal White. 6-21-57.
- MAGNET (Nelson-J.). #55-120-2. TB 32'' M. Y5M, S., Apricot; F., Apricot with Buttercup Y. at haft. Apricot Glory X Palomino. 7-30-57.
- MAID OF DELFT (H. den Ouden). TB 36'' M. V1M, Violet self; Sdlg. from Nightfall. A.M., '56. Kon Myoor Tuinbouw & Plant Kunde. Orpington '57. 5-'57.
- MAJESTIC MOUNTAIN (Marx-W.). A. Japanese 34'' M. RV1, Light rose violet self, white blaze, few white veins; rose styles, tipped white. Karahashi X Sdlg. 1-2-57. Marx '57.
- MALLOW LACE (Graham for Sass). TB 32'' M. RV1, with tangerine beard. Unknown. Bull. #145. '57. 1-30-57.
- MALLOW PINK (Marx-W.). #54-112. TB 42'' M. R1L, Light Mallow pink. Sdls. involving Pink Reflection, Cascade Splendor, Chantilly, Mulberry Rose, et al. 3-23-57.
- MANOMET (Knowlton). #53-100. TB 32'' M. R1D, Dark red self; smooth hafts. Garden Glory X Redcap. H.C. '57. 9-21-57.
- MANY SMILES (Tompkins). TB 39'' M-L. W4D, S., White; F., Violet-red. Lamplit Hour X Wabash. Fleur de Lis '57. 2-20-57.
- MAORI CHIEF (McCashin-D.). TB 40'' M. Y2L, Cream ground plicata, brownish-red dots bordering F., Benton Duff X Harlequin. Best Sdlg. Hutt Valley Hort. Show '56. 7-18-57.
- MAORI LEGEND (Stevens). #1/d94. TB 42 M. O1L, Tangerine gold self. (((Charm x Redmayne) x Caribbean Treasure) x (Hall Pink Sdlg. x Radiation)) X (((Searchlight x Golden Majesty) x ((Golden Hind x Firelight) x Royal Sovereign)). 12-31-57.
- MARCELLINO (Drewett). TB 36'' M. W1, White self, hafts, seaweed brown. (Orloff x Blue Shimmer X Surrender. 10-7-57.
- MARILYN C (Crosby). #C-56-10. TB 36'' EM-L. R5L, S., pink, blending to peach-apricot; F., Creamy-white, edged apricot; hafts & styles, apricot; deep tangerine beard. Frances Kent X (#49-11D x #48-18A). 6-15-57.
- MARINE HAVEN (Reynolds). #58-EB. TB 35'' LM. B1M, deep medium blue. (Snow Flurry x Chivalry) X Lake Shannon. 5-22-57.
- MARJORIE TALLCHIEF (Corliss). #57-S-17. Spuria 32'' Spuria-M. B1L, Ethyl Blue self. Larksong X Nies' Blue Sdlg. 7-9-57.
- MAROON SHEEN (Riggs). #1-C-8, TB 38'' M. R1D, Dark maroon self; orange beard; no haft markings. Red Valor X Pacemaker. 6-27-57.
- MARQUIS de LAFAYETTE (Holleyman). Abbeville type 48'' M. YV1, Brown toned red-violet self; Abbe. type style arms & claw, yellow base. (Wheel Horse x Holly Queen #3) X Peggy Mac. 5-15-57.
- MARY PICKFORD (Benson-C.). #56-10. TB 34'' M. WV2, S., Royal Purple; F., White trimmed Royal Purple. (Minnie Colquitt x Rare Marble) X (Port Wine x Belle Meade). H.C. '57. 7-8-57.
- MARY SUE (Suiter). TB 36'' M-L. W1, White self; tangerine beard. ((Midwest Gem x Daybreak) x Salmon Sheen) X Mary Randall. 7-2-57.
- MARY WAIS (Gatty). #54-N. TB 36'' VL. V4, S., Orchid; F., deep red-black, flushed

- brown at hafts; deep orange beard. Extravaganza X Red Torch. 12-31-57.
- MASTER HERMAN (Theurer). #1. TB GY5M, Burnished Golden chartreuse self. Inca Chief X Dolly Varden. 10-1-57.
- MAYBELLE MARTYN (Zurbrigg for Edmison). #51-5-D. TB 40'' R5L, Apricot-pink self. Hit Parade X Pink Formal. 4-13-57.
- MAY CLOUD (Thompson). #10-53-7. TB 38'' E-LM. BW1, S., Blue white; F., Milk white, tinted blue; pale blue beard. White Sdlg.:(Unknown blue x Gudrun) X Chivalry. 7-1-57.
- *MAYFAIR (Murrell 1933).
- MAYFLOWER (Knowlton). #51-H-21A. TB 34'' M. B1M, Medium blue self, light area on haft. Chivalry X Jane Phillips. H.C. '57. 9-21-57.
- MAYO ROSE (Smith-Wm.O.). #27. TB 48'' L. V5, Lavender and purple blend, gold sheen; orange beard, style arms pale gold and lavender. Dr. Chas. H. Mayo X Morocco Rose. 8-31-57.
- MELBREAK (Randall). TB 38'' M-L. R5L, pinkish brown; tangerine beard. (Cherie x Angela Borgia) X Mary Randall. Fairmount '57. 1-19-57.
- MELLO MOOD (Tompkins). TB 40'' M-L. Y5L, Baryta Yellow, flushed Viridine Green, patterned Orange Pink and Capucine Buff. (Coronado x Nankeen) X (Nankeen x Russet Wings). Fleur de Lis '57. 2-20-57.
- MELODY MART (Branch). #5474. TB 36'' M. O5M, S., Pinkish apricot; F., Golden apricot. Dream Dust X June Bride. 6-24-57.
- MELOLITE (Lowry). #L52-3A. TB 38'' M. GY1L, Soft yellow with slight green tint. Caramel X Mellow Gold. 9-19-57.
- MERRY GOLD (Antrim). #533-56-4. TB 39'' M. Y1M, Butter-yellow self; yellow-orange beard. Golden Treasure X Prairie Sunset. 5-14-57.
- MERRY MOOD (Rogers, Glenn). TB 36'' M-L. V4D, S., Wine colored; F., Wine on white; yellow beard. Port Wine X Rose Top. 9-5-57.
- MEXICAN HAT (Rogers-Roy). TB 36'' M. V3, S., Light pansy-violet; F., Reddish-violet shading to ruby-red at edge. (Burgundy Rose x Dolly Varden) X Chantilly. 12-31-57.
- MIDDAY SUN (Neel). TB 42'' M. Y1M, Golden yellow self, white blaze on falls. Ola Kala X Pink Cameo. Walton Park '54. 7-3-57.
- MID EASTERN (Greenlee). Int. B 22'' E. B1, distant Mountain Blue self. Unknown. 12-31-57.
- MIDNIGHT WHISPER (Marx-W.). #56-99. A Japanese 38'' L. BV5. Pastel blue-violet blend, faint white veins; styles white, delicately edged Campanula blue. Double Unknown. 1-2-57. Marx '57.
- MING LACE (Gibson). #41-3D. TB 30'' M-L. Y5, S., light clear Cadmium yellow-laced; F., gold with light reddish brown tip of lace. Chantilly Sdlg. X Chantilly Sdlg.. 5-13-57.
- MINNESOTA SKIES (Foss for Hartkopf). TB 38'' M. B1M, Sky-blue self. Blue Rhythm X Blue Valley. 9-26-57.
- MISS GEE GEE (Johnston). #51-11. TB 36'' M. B1L, Frosted pale blue self, F. flaked dark blue. Azure Skies X Gloriele. 3-16-57.
- MISSION TRAILS (Knopf). #1778. TB 36'' VL. V5, S., Pansy Violet; F., Heliotrope blaze, edged lighter than garnet brown hafts and border; orange brown beard. Spanish Peaks X Inca Chief. 8-21-57.
- MISS JAN (Hays). TB 38''. V1L, green veining in center of falls of lavender self; deep yellow beard. Unknown. 6-9-57.
- MISS ST. LOUIS (Benson-C.). #55-11. TB 32'' L. OR1L, Salmon Pink self. (Salmon Shell x ((SQ72 x Sdlg. #44-67) x (Pink Formal) X Flirtation. 6-28-57.
- MISTIS (MacMillan). Louisiana (Giganti-fulva) 36''. VE. V3M, S., Wild Orchid; F., Verbena. Unknown. 3-23-57.
- MISTY ORCHID (Emery). #56-10. TB 38'' M. V3M, S., Wild Orchid; F., shade darker.

- Sdlg. #48-8:(Matula 'x Q-51) X Sdlg. #53-4: ((#50-8 x Sharkskin) x (Dream Time x Hall Sdlg. #42-05)). 7-8-57.
- MODERN DESIGN (Muhlestein). #51-106-B. TB 36'' M-L. Y1D, Deep golden yellow self. Ola Kala X Fabulous Kate. 12-31-57.
- MOHR LACE (Recknor).. #54-1. TB 39'' VL. V1M, Medium violet self, golden shoul- gold beard. Snow Flurry X Elmohr. 7-6-57.
- MOHR LEMONADE (Muhlestein). #56-122. OncoTB 36'' EM. Y1L, Pale Lemon self. (Ormaco x Cool Lemonade) X ((I. *hoogiana* x Indian Chief) x Cool Lemonade). 12-31-57.
- MOJAVE DAWN (Rogers-Glenn). TB 34'' M. Ro1, Henna self; beard same color. Pretty Quadroon X Argus Pheasant. 9-5-57.
- MONARCH PASS (Rogers-Glenn). TB 38'' M. Ro1, Copper bronze self; yellow beard. Pretty Quadroon X Golden Russet. 9-5-57.
- MON BIJOU (Fletcher). MDB 3'' E. V1M, Deep violet self. Mixed pumila seed. C.P.C. RHS, Wisley Trial '57. 10-10-57.
- MONDAY'S CHILD (Quigley). I. *tenax* 9'' E. W1, white self, with small spot of yellow at haft; distinctive. Collected. 5-10-57.
- MOONLIGHT MELODY (Voris). #Pin-ML-521. TB 36'' M-L. Y1L, Soft yellow self; deeper yellow beard. Melody Lane X Pinnacle. 7-3-57.
- MOONLIGHT MIST (Smith-C.&K.). #55-15. TB 36'' E-L. B1L, Pale lavender-blue with smooth light yellow hafts; yellow beard. South Pacific X (Admiration x Blue Valley). 8-13-57.
- MOON MAIDEN (Lowry) #L52-13. TB 34'' L: Y1L, Soft cream yellow self. Yellow Diamond X Mellow Gold. 9-19-57.
- MOON ROCKET (Rundlett). #B-27-R. TB 29'' E-M, Re. Y4, S., Canary yellow; F., warm white, slight yellow flush in throat; beard yellow. Double Date X September Sparkler. 11-12-57.
- MOPPET (Simonson). #534. MDB 6½'' E. B1, S., Wisteria blue; F., Wisteria blue with red-purple spot; beard yellow, white tipped. (Moon Gleam x (Rose Mist x Sound Money)) X Sib of April Morn. 12-31-57.
- MORNING MISCHIEF (Marx-W.). #56-19. A. Japanese 40'' M-L. RV4, S., reddish violet; F., sanded light blue, changing to light violet at tips. Single. Unknown. 1-2-57. Marx '57.
- MR. BAKER (Theurer). #3. TB 36'' GY5L, S., deep chartreuse; F., Burnished golden bronze. Inca Chief X Dolly Varden. 10-1-57.
- MULBERRY MOUSSE (Conger). A.Louisiana 38'' M. V2, Ground color medium lavender, veined bright Mulberry. Caroginia X Bayou Glory. 7-19-57.
- MULTIPLEX (Greenlee). MDB 8'' E. B1, Distant blue; brighter blue beard. Multibranched. (Sulina x Los Angeles) X Thisbe. 12-31-57.
- MUSTARD POT (Cassebeer). #562. TB 30'' M. Y1D, Mustard yellow self. Good News X Video. 11-11-57.
- MY DADDY (Welch). #N-513. MDB 4½'' EE. W1, Warm white self. Sdlg. H-503: (Sulina x Cook #1546) X Hanselmayer. 10-4-57.
- NANCY ANN (Williams). #W56-13. TB 36'' E-M. O1M, Chrome orange self, with florescent pink sheen; deeper orange beard. (Party Dress x Ruffled Bouquet) X Apricot Glory. 7-29-57.
- NATIVE BELLE (Neel). TB 42'' M. N., Black self with reddish tinge. Black Belle X Sable. 4-6-57.
- NATIVE ENCHANTRESS (Quigley). L. *tenax* 11'' EM. W1, S., Pearl white, lower midrib, lavender; F., Pearl white, haft etched with brown and hint of purple. Distinctive. Collected. 5-22-57.
- NEGRURA (Crosby). #C-55-3A. TB 34'' EM-L. N1D, Near black self; beard touched lightly with yellow. (Storm King x Solid Mahogany) X Sable Night. 7-10-57.
- NEST EGG (Childs). #C-61. MDB 7'' EE-EM. Y3, S., yellow; F., Mustard yellow;

yellow beard. Cryso-ro X Hanselmayer. 9-3-57.

*NICHOLAS BIDDLE (Gers.N.) R., 1937.

NORDIC PRINCESS (Housley) #VV267P. TB 35'' L. WB4L, S., White, flushed blue; F., White; beard, mixed ivory, white and blue. Baker Sdlg. #49-6:(Snow Flurry x Sylvia Murray) X Sea Lark. 8-5-57.

NORSE MAIDEN (Samuelson). #W19-9)1. TB 36'' M. W1, Ruffled white self with cream suffusion. (Snow Flurry x Sdlg. #FX2-6)a) X Great Lakes. 11-12-57.

NO-TOP (Lawson). #53-7. TB 35'' M. W1, no standards; F., six, cool white, with greenish buds; 6 styles; flat form. Purissima X Spindrift. 12-31-57.

NYLON LACE (Schmelzer). #15-h-57. TB 40 EM. R1L, palest pink self. Cathedral Bells X Pink Sdlg.. 6-18-57.

OCTOBER CLOUDS (Brown, Dr. Percy). Int. B 28'' Fall. B3, S., Medium blue; F., shade darker, slight haft markings of lavender-brown. Fall Violet X Sdlg. 10-14-57.

OH BOY (Grinter). #1-52. TB 30 M. Y1M, Chrome yellow self. #29-50 X #46-50. 6-27-57.

OKLAHOMA TWILIGHT (Shilling). #5213. TB 34''. R1L, Flamingo pink; tangerine beard. (Cherie x Twilight Skies) X (Cherie x Twilight Skies). H.C. '56. Shilling '57. 2-23-57.

*OLD TAPESTRY (Murrell 1932).

*OLIVE MURRELL, TB; Perry 1924- released by Mr. Perry.

OLIVE MURRELL (Hutchison). TB 36'' M. Y5D, Rich warm brown blend with a brilliant blue flush on falls. (Loomis V20 x Argus Pheasant) X Rainbow Room. Wisley Trial '57. Orpington '57. 9-20-57.

OLIVETTE (Jonas). #853-1. TB 38'' M-L. GY3, S., Citron yellow; F., Olive yellow; yellow beard. G.D. 436-A:((Golden Spike x Alice Harding) x (Soldano x China Clipper)) X S-16-1:(Coronet x Green Pastures). Longfield '57. 2-6-57.

OLYMPIC BLUE (Simonson). #605. MDB 6'' E. B1M, Medium blue self; white beard. Sib of April Morn X Unknown. 12-31-57.

OLYMPIC STAR (Douglas.G.). #921-x. TB 40'' M-L. R4, S., lavender; F., Maroon. Criterion X Olympian. Fairmount '57. 4-1-57.

ONONDAGA (Hall-T.W.). #R-147. TB 30'' M-L. R1D, Mahogany red self; Sdlg. B-7 X Miobelle. 11-20-57.

ORANGE CRUSH (Suiter). TB 38'' M-L. O5D, Burnt orange self. (((Midwest Gem x Chantilly) x Gold Ruffles) x (Salmon Sheen)) X ((Chosen x Prairie Sunset) x (Muhl. #47-72A x Pink Formal)). 7-2-57.

ORANGE PAGODA (Madsen). #6-53-B. TB 34'' M. O1, Orange self. Sdlg. #12-49-A X Muhl. Sdlg. #51-13. 8-5-57.

*ORANGE SUNRISE (Gers.N.) R., 1943.

*ORANGE TORCH (Gers. N.). R., 1943.

ORCHID BALLET (Voris). #PPTH-554. TB 36'' M-L. VR5L, Orchid pink self. Tally Ho X Pagan Princess. 8-17-57.

ORCHID LULLABY (Brown-Rex). #327-19. TB 42'' M. V1L, Light orchid self; bright yellow beard. New Show X Radiation. 11-18-57.

ORCHID THRILL (Hamacher). TB 40'' E. VR1L, Orchid pink self; tangerine beard. Pink Sensation X Happy Birthday. 7-31-57.

OREGON RAIN (Hafner). #20-501. TB 40'' M. Y1D, Clear gold self; orange beard. Jake X Unknown. 9-29-57.

ORENDA (Wills). #181-54. TB 38'' M-L. R1M, S., Soft Rose-red; F., Soft Rose-red, faintly suffused brown; brown-gold beard. Right Royal X (Garden Flame x ((Hermitage x Hernani) x Ethelyn Kleitz)). 5-30-57.

ORIENTAL TAPESTRY (Wallace-M.). #56-395-4. TB 32'' M. Y2, Bright yellow plicata, stitched brown. Tiffanja X Self. 8-5-57.

*ORIENT PEARL (Murrell 1930).

- PACIFIC JEWEL (Murray). #9-53. TB 34'' M. B1L, Light blue self; light blue-white beard, tipped darker blue; no markings. ((Wedgwood x Green Pastures) x Chivalry) X Angel Glow. 9-28-57.
- PAINTED DOLL (Boen). #55-36. TB 36'' M-L. BW4, S., Blue-white, flushed pale yellow at base; F., Dark red-purple, border bright light lavender; orange beard, dark brown haft. Extravangaza X Sdlg. 53-11:(Gypsy x Great Lakes). 11-4-57.
- *PAKISTAN (Murrell 1948).
- PALACE GARDENS (Fothergill). TB 44'' M-L. W2, White plicata with red-brown trim. Benton Susan X Rare Marble HC '57. Wisley Trials '57. 10-10-57.
- PALEFACE (Plough). #51-61-6. TB 34'' M. GY4L, S., Light greenish yellow; F., Ivory white with light yellow edges. (Gold Ruffles x Cherie) X Twenty Grand. 10-17-57.
- PAPER AND INK (Muhlestein). SDB 14'' E. W4, S., White; F., White with blue spot. Fairy Flax X Utah Sky. 12-31-57.
- PARAKEET (Roberts). #A-400. MTB 18'' M. Y5L, S., greenish buff; F., Greenish buff overlaid Heliotrope, border like S.; orange beard. Widget X Welch Sdlg. #444. 6-26-57.
- PARTY PINK (Crosby). #C-55-9. TB 38'' EM-L. VR5L, Light lavender-pink blend, with beard the same color. Sdlg.:(49-19-A x 49-11) X Sdlg. #C-52-6. 7-10-57.
- PASTEL DAWN (Welch). #N-538. MDB 8'' E. Y5L, Lemon yellow S.; F., Lemon yellow, overlay of pastel green and pink; red-orange beard. Fairy Flax X Unknown. 10-4-57.
- PATROL (Schirmer-C.). #VA-140. TB 36'' M. Y3M, S., yellow F., Yellow and apricot. (Aztec Copper x Midwest Gem) X Cascade Splendor. 10-8-57.
- PAUMA (Lawson). #56-18. TB 36'' M. Y2, S., Empire yellow; F., Cream with burnt sienna lines and dots at haft, shading down to green and brown dots; orange beard. Plicata A Sdlg. X Red plicata Sdlg. 12-31-57.
- PEACH PLUME (Plough). #53-34-10. TB 30'' M. YR5L, S., Indian yellow, flushed pink; F., Aureolin yellow blending pink near beard; tangerine beard. Frances Kent X Mary Randall. 7-5-57.
- PEACHY (Voris). #GEPS 5363. TB L. O5M, Pure peach self; tangerine beard. Pink Sensation X Golden Eagle. 7-3-57.
- PEACHES a la MODE (Vallette). #55-1. TB 38'' M. YR4L, S., Pale shell pink, tinged peach; F., Rich Cream; pale tangerine beard. Pink Sensation X Salmon Fuchsia. 6-18-57.
- PEARL MOSQUE (Smith-C. & K.). #56-50. TB 40'' M-L. W1, White with a pearl lustre. Tradition X Silver Hawk. 8-13-57.
- PENNANT (Becherer). TB 36'' M. Y5. Cascade Splendor X Sdlg.. 7-28-57.
- PEPPERMINT STRIPE (Vallette). #56-5. TB 34'' M. R3M, S., Light rose, tinged mulberry; F., Deeper Rose, upper half striped as peppermint. Yellow beard. Muhl. Sdlg. #48-25C X Salmon Fuchsia. 6-29-57.
- PERT MISS (Antrim). #531-55-2. TB 35'' M. R4L, S., Russet Cream; F., Pink; beard, orange. Fantasy X Golden Russet. 5-14-57.
- PICNIC (Beardsley). #3-122-2. TB M-L. V4M, S., Tint of Empire Yellow; F., Magenta-rose, narrow yellow border. Pluie D'Or X Chasseur. 7-11-57.
- PIETY (Branch). #5609. TB 36'' E-M. W1. Snow Goddess X Sdlg. #5339. 6-24-57.
- *PINK CHOICE. Etc.; (Whiting N.); R., 1948.
- PINK CHOICE (Whiting). #5315. TB 35'' M-L. R1L, light shell pink self. Love Story X Pink Formal. Soo Preme '57. 1-19-57.
- PINK DEBUT (Jonas). #1112-3. Int. B 20'' E. R1L, Pink self; tangerine beard. Sdlg. #920:(Matula x Flora Zenor) x Austrian pumila Y.) X Paradise Pink. 12-27-57.
- PINK DRESDEN (Madsen). #3-55. TB 34'' M. R1L, Pale pink self, laced. Ruffled Gem X Sdlg. #1-52A. 10-22-57.
- PINK ECHO (Vallette). #55-4. TB 38'' M. RW1L, Pinkish white self; shrimp beard. Salmon Fuchsia X paler Sib. #52-1. 6-18-57.

- PINK MINK (Varner). #19. TB 36'' EM. R1L, Deep blush pink. (Cherie x Floradora) x D.Hall Sdlg. #51-28 X May Hall. 12-2-57.
- PINK SERENITY (Bro. Charles). #55-16. TB 30 M. R1L, Salmon pink self. Sdlg. #51-51 X Enchanted Pink. 12-31-57.
- PINK SUNSET (Branch). #5547. TB 35'' M. RY5M, S., clear pink, shading apricot; F., Apricot; tangerine beard. Dream Dust X (Pink Tower x Pink Formal). HC '57. 6-14-57.
- PINK SURPRISE (Hamacher). TB 34'' E. R1L, Deep pink self, yellow at haft; tangerine beard. Pink Sensation X Happy Birthday. 7-6-57.
- PINK TEA (Corey). #84-P-1. TB 36'' M. OR1, S., pink shading honey-apricot; F., same with less pink; intense coral-red beard. (Evening Star x Sugarplum) X Unknown. 2-8-57.
- PLACID HARBOR (Nesmith). #54-61-B. TB 38'' M. R1L, Azalea Pink with matching beard. Memories X Dolly Varden. 12-12-57.
- PLACIDITY (Cassebeer). TB 32 M. #650. B1M, Light medium blue self, no haft markings, inconspicuous beard. (Great Lakes x Lavender Mist) X Keene Valley. 11-11-57.
- POET'S DREAM (Brown-Opal). #6-21-B-3. TB 36'' M. W1, White self; light Y. beard. (Gold Ruffles x Chamois) x Altar Light) X Rehobeth. 7-12-57.
- POLKA TIME (Schortman). #359. TB 34'' EM-L. VB3, S., Blue-violet; F., Violet-blue. (Snow Flurry x Violet Symphony) X (Sable x Chivalry). 5-20-57.
- POLYNESIAN DANCER (Stevens). #5-d86. TB 40'' EM. Y4L, S., pale bronzy cream; F., light Tobacco brown; gold beard. (((Fair Elaine x Pinnacle Sib) x (Fair Elaine x one parent of Pinnacle) x (Summit Sib x Sdlg. in Pinnacle line) x orchid pink sdls. from Miss California and Pompadour) X ((Tropic Moon x (Redmayne x Pompadour) x Royal Sovereign Sib x Phantom Gold). 12-31-57.
- *POMONA (Gers.N.); R., 1933.
- PORT SAID (Wedgwood). #0. TB-Onco; 18'' E-M. YV5D, S., Amber with purple influence; F., similar but more amber. Amber Gem X Capitola. 12-6-57.
- PRETTY MOHR (Brown-Rex). #B-156. TB 32'' M-L. YR5, Coral pink, rose and buff blend, buff on upper half of F.; yellow beard. Elmohr X Pretty Quadroon. 11-18-57.
- PRIMA BALLERINA (Payne). #193. A. Japanese 50'' M. 6 petals. V1L, Light Ampare purple self. Sdlg. #93: (Ai-fukurin x Fanny Hamlet Childs) X Celestine. 9-21-57.
- PRINCESS PAM (Voris). #GEPS-522). TB 31'' E-M. RV5, Deep Raspberry self; geranium beard. Pink Sensation X Golden Eagle. 7-3-57.
- PRINCESS PRIM (Samuelson). #C10-1)1. TB 37'' M. YW1:, Ivory self. Snow Flurry X Rainbow Room. 11-12-57.
- PRINCESS GIRL (Neel). TB 36'' M. R5L, S., Clear pink; F., flushed gray; tangerine beard. Pink Cameo X Spindrift. 7-3-57.
- PSEUDOPUMILA ZADAR (Randolph). Acq. #Y-1J. MDB 5'' E. W4, S., white; F. grayish white with faint brownish purple center. Collected clone of *I. pseudopumila* from environs of Zadar, Yugoslavia. Coll. by L. F. & Fannie R. Randolph. 7-8-57.
- PURE VIOLET (Craig-Kenny). #K-53. TB 38'' M-L. V1M, Brilliant Rosy violet self. White Ruffles X Farewell. 6-28-57.
- PURIRI (Stevens). #3/a166. TB 42'' M. V3, S., light rosy lilac; F., deeper rosy lilac, shaded violet. Dream Castle X (Lilac Arbor x Inspiration) Stevens '57. 5-22-57.
- PURPLE HEART (Varner) #540-5A. TB 40'' ML. V1L, light violet. Chivalry Sdlg. X Illini. 12-2-57.
- PURPLE PARROT (Slamova & Hawkinson). Arilbred; 21'' VE. V5D, S., deep purple with deeper veins and brown-henna striations; F., deeper purple, almost black veins and signal, green-black iridescence. Fair Enough X Joppa Parrot. 12-27-57.
- PURPLE RUFFLES (Schortman). #459. TB 34'' EM-L. BV1, Blue-violet self, white

- spot at haft. (Snow Flurry x Violet Symphony) X (Sable x Chivalry). 5-20-57.
- *PYROTECHNICS (Gers.N.). R., 1948.
- *QUAHADA (Gers.N.); R., 1939.
- QUIET SKY (Cook-P.). #14755. TB 36'' M. W4, S., White; S., Light violet, solidly colored up past end of beard. Blue Rhythm X Sdlg. #3550(Blue Sdlg. x(Progenitor x Shining Waters)). 11-23-57.
- QUIVERING FLAME (Zurbrigg). #52-64A. TB 35'' R4, S., bright orange, flushed red; F., dark red, some veining at haft. Extravaganza X Pathfinder. 1-19-57.
- RAINIER (Smith-Eva). #54-113. TB 34'' M. W1, White self; pale lemon beard. Jane Phillips X Snosheen. 9-8-57.
- RAMBLER (Johnson). #53-27. TB 40'' M. Y4, S., Golden yellow, flushed pink; F., Ruby Red, yellow edge; beard yellow, white & yellow haft. Rajah Brooke X Chantilly. 10-24-57.
- RANA (Gibson). #49-2A. TB 43'' E-M. Y2, S., Cadmium yellow-gold, touched brown, red; F., white, Cadmium Y. edge, overlay maroon-brown stitching. Sdlg. X High Noon. 5-13-57.
- REAL EBONY (Austin) #535. Oncocyclus 8'' EE. N1, black self. Selection from very variable imports of species *I. nigricans*. 1-2-57. Rainbow '57.
- RED DART (Fay). #56-1. TB 32'' E. W1, pure white self; Red beard. Lipstick x Sister Sdlg. ($\frac{1}{4}$ Snow Flurry, $\frac{1}{4}$ New Snow, $\frac{1}{2}$ Pink Sdlg.). 2-21-57.
- *RED GARNET (Gers.N.); R., 1948.
- RED-LILLI (Welch). #M-553. SDB 12'' L. R3, S., Medium red; F., Darker red; bright yellow beard. Muhl. pink Sdlg. X Hill's Red Sdlg. 12-31-57.
- RED SPLENDOR (Wallace-M.). #5441. TB 28'' M. R1, Dust red self. Ebony Echo X Ranger. 8-5-57.
- RED TIDE (Crandall). #56-7. TB 38'' M. R3D, S., Dark red; F., Black red. (Mexico x (Solid Mahogany x Inspiration)) X (Golden Eagle x Inspiration). 7-25-57.
- *RED SUNRISE (Gers.N.); R., 1943.
- REGAL SPLENDOR (Smith-C. & K.). #57-1. TB 33'' E. R1D, Dark Crimson self. (Adirondack Chief x (Christobel x Lord Dongan)) X Sable Night. 8-13-57.
- *REGENCY (Murrell 1934).
- REJOICE (Dubes). TB 36'' EM. W1, White self. Sdlg. #49-26-1 X Arctic Splendor. 8-30-57.
- REVERTO (Roberts for McKee). #McKee-4921. Border I. 24'' M. R5D, S., Maroon-brown blend; F., lighter coppery-pink; orange beard, gold flush at haft. Miogem X Miogem. 10-17-57.
- ROBERT J. GRAVES (Smith-C. & K.) #55-70. TB 34'' L. W1, Pure white. South Pacific X Valley Mist. 8-13-57.
- ROISTAR (Kelwa y). TB 42'' EM. R1L, Flamingo pink self. Loomis V20 X Unknown. H.C. BIS. '56. Wisley Trial '56. 12-31-57.
- ROSAFLARE (Buss). #49-183. TB 36'' M. R5, Coppery-rose. #45-91:(Copper Pink X Tobacco Road) X #46-243:(Bryce Canyon x Casa Morena). Edenwald '57. 2-23-57.
- ROSE AMETHYST (Kleinsorge). #385. TB 36'' L. VR5, Plumcoloe, brown suffusion; F., Plum, haft brown, violet patch at end of brown beard. Sdlg. #357B X Sdlg. :)#332 x #305A). Cooley's '57- 3-4-57.
- ROSEBAY (Benbow). TB 38'' M. RV1L, Pinkish violet self. Helen McGregor X Mulberry Rose. Wisley Trial '57. 10-7-57.
- ROSEBLOOM (Schreiner-R.). #J-31-E. TB 38'' EM. RV5M, S., Bengal rose, suffused lilac; F., Bengal Rose, suffused lilac; tangerine beard. Pathfinder X Pink Formal. Schreiner's '57. 3-25-57.
- ROSE KALMER (Freudenburg). TB 30'' M. W1, White with gold veining and gold beard. Chantilly X Hit Parade. 10-9-57.

ROSE LACE (Cline). #C-1-55. TB 30'' M. R1M, S., Rose; F., Rose-pink with yellow haft. Hall's laced Sdlg. X Pathfinder. 6-29-57.

*ROYAL AMETHYST (Gers.N.) R., 1942.

ROYAL IMAGE (Branch) #5620. TB 32'' M. B1M. (Helen McGregor x (Azure Skies x Distance)) X Regina Maria. 6-24-57.

ROYAL LADY (Holleyman). Giganticaerulea type 54'' M. V1L, near color of Wisteria blossom, darker veined, silver overcast; O-Y signal. Wheel Horse X Her Highness. 4-15-57.

ROYAL ROSE (Freudenburg). TB 36'' EM. R5M, Blend of Rose, orchid, bronze and gold, orange beard. Lady Louise X (Hit Parade x Pink Formal). 9-30-57.

ROYAL RUBY (Goodman). #207813. TB 36'' M. R1, medium to dark red self. Red Huss er X Savage. 7-4-57.

ROYAL SPICE (Samuelson). #PS53-5)2. TB 34'' VL. BV1D, Dark blue purple, heavily fluted* self. Vatican Purple X Mexico((x Great Lakes) x Spanish Peaks). 11-12-57.

*RUDDIGORE (Murrell 1932).

RUFFLED SKIES (Maxim). #52-8-F. TB 40'' M. B1, Clear Sky Blue self; beard orange at base fading to light Y. at tip. Snow Flurry X Chivalry. 12-15-57.

RURAL RHYTHM (Crandall). #56-36. TB 44'' M. GY5, Chartreuse with brown flush, due to small veining. Pink Formal X Capitola. 7-25-57.

RUSTAN (Voris). #HGR 522. TB 37'' M-L. Y5M, Deep Russet tan self. Golden Russet X Heritage. 7-3-57

RUTH VORIS (Voris). #PSH-5310. TB 36'' M. OR5L, Peach pink self. Heritage X Pink Sensation. 8-17-57.

SAFFRON SUNRISE (Benbow). Regelia-TB 32'' E. Y1L, Lemon yellow self with Regelia penciling. Saffron Charm X Sicilian Gold. Wisley Trial '57. 10-7-57.

SALEM (Schreiner-R.). #K-590-B. TB, B1L, Light true blue self. Harbor Blue X (Blue Rhythm x Sylvia Murray). H.C. '57. 7-9-57.

SARAH ELIZABETH (Randall). TB 38'' M. Derwentwater X South Pacific. Randall '57. 12-16-57.

SAWTOOTH RANGE (Grapes-H.). #57-14. MDB 4½'' EE. V3, S., violet; F., Mulberry, darker veined, lighter serrated edge; white beard. Unknown. 11-14-57.

SEA ORCHID (Brown-Dr. Percy). Border I. 26'' L. V3L, S., pale lavender; F., deeper lavender shading to cream edges; reverse color, cream; cream-lavender styles. 8-20-57.

SEA TITAN (Marx-W.). #56-3. A. Japanese 42'' M. B1, Blue self (near Veronica), slight purple tinge toward edges. Styles tinged Damson blue. Double. Unknown. 1-2-57. Marx '57.

SENIOR SERVICE (Stevens). #1/e49. TB 42'' M. B1D, Clear deep purple self; blue beard. (((Magnolia x Winston Churchill) x Summer Skies) x Chivalry) X ((Wychnor x Great Lakes) x (Magnolia x Winston Churchill) x Summer Skies). 12-31-57.

SENIORITA ESTELA (Crosby). #C-56-19A. TB 38'' EM-L. VB1L, deep lavender blue, light blue patch at tip of beard. Snow Flurry x Great Lakes) X Jane Phillips. 6-15-57.

SEPTEMBER SUNSHINE (Brown-Dr. Percy). TB 36'' Fall. Y1M, Clear butter-yellow self; orange beard, slight haft veining. Fall Primrose X Double Date. 10-14-57.

SERGEANT BOB (Morgan). #495-1A. TB 38'' M. BW1, Blue white self; blue tipped beard. Sdlg. #51-5:(Snow Flurry x Spanish Peaks) X Spanish Peaks. 11-5-57.

SESAME (Ardley). TB 36'' M-L. V1D, Purple self; white round beard. (Grannie x Madrigal) X Minnie Colquitt. 12-31-57.

SHARKSIANA (Roberts). #B-800. Border B. Oncobred 25'' E-TB. W4, S., White; F., White with chartreuse lines; orange-yellow beard. 44 chrom. Sharkskin X I.

- susiana* (lone seed in pod). 12-31-57.
- SHARON ANN (Lipiec) #50-76. TB 38'' M. R1L, Flamingo Pink self. Pink Formal X Pink Sdlg. 7-28-57.
- SHARP CONTRAST (Greenlee). MDB 6'' EE. Y4, S., Greenish cream; F., Dark Plum-violet, edged cream; white beard. ((San Francisco x purple pumila) x I. *chamaeiris*) X Welch J-509 (Red-purple, edged whitish). 12-31-57.
- SHAWNEE BRAVE (Antrim). #536-55-1. TB 37'' M-L. Y3D, S., Bronze; F., Chocolate Brown; orange-yellow beard. Shah Jehan X Tiffany. 5-14-57.
- SHIMMERING RIM (Harrison). #125-33-1. TB 38'' M. W2, White marked clear blue. Blue Rim X Blue Shimmer. 9-24-57.
- SHINING MARK (Wills). #51-55. TB 36'' M. Y4, S., White; F., Deep yellow, shaded olive; gold beard. Mystic Melody X Sib of Soft Answer. 5-30-57.
- *SHIRA (Gers.N.); R., 1945.
- SILVER-GREY (Combs). Spuria. S., Grey; F., Yellow-bronze. Bronzspur X Nies smoky Sdlg. 11-20-57.
- SILVER PALOMINO (Emery). #54-3. TB 38'' E-M. Y3M, S., light to medium Y.; F., White with yellow border. Mexia X Sdlg. 48-13: (White Goddess x Frosty Blue). 7-8-57.
- *SILVERY SKY (Gers.N.); R., 1933.
- SILVER TIDE (Neel). TB 42'' M. E1, White self. New Snow X Blue Rhythm. 3-6-57.
- SKIRTS OF PINK (Reinhardt). #57-30. TB 36'' M. W4, S., Pure white; F., Solid Apricot-pink; tangerine beard. Hall's '52 Pink Sdlg. X Sdlg. 56-59. 11-6-57.
- SMILING BEAUTY (Payne). #581. A. Japanese 3 petals 38'' M. V4L, S., Bradley's Violet streaked light & edged white; F., White, uniformly sanded Bradley's violet, veined. (Sdlg. #62 x Sdlg. #110) X Joyous Cavalier F3. 8-28-57.
- *SMILING WELCOME (Gers.N.); R., 1937.
- SNOW BONNETT (Suiter). TB 30'' M-L. W4, S., White; F., deep gold. Pinnacle X Summit. 12-31-57.
- *SNOWDRIFT (Murrell 1929).
- SNOW GOLD (Evans). #57-18-B. TB 34'' EM. W1, S., White; F., White, slightly sprinkled with gold; gold beard. Snow Flurry X Cherie. 7-8-57.
- SNOW TOP (Hall-T.W.). #W-74. TB 36'' M. W1, White self; yellow beard. Sdlg. #W-51 X Helen McGregor. 11-20-57.
- SOARING KITE (Nelson-Jeannette). #55-97-3. TB 42'' M-L. Y1L, Palest primrose yellow self, deeper primrose yellow beard. Party Dress X Snosheen. 6-30-57.
- SPECIAL DISCOUNT (Becherer). TB 36'' M-L. Brown plicata. Lady of Shalot X Rose Top. 7-28-57.
- SPECKLED BIRD (Crandall). TB 34'' E-M. V2D, Purple self with complete plicata coverage. Tiffany X Capitola. 7-25-57.
- *SPRING CHARM- Etc.: (Gers.N.); R., 1947.
- SPRING CHARM (Hall-D.). #54-45. TB 37'' M. R3L, S., Light Pink; F., Medium Pink Sdlg. 51-28 X May Hall. 12-31-57.
- SPRING DAWN (Ricker for Sass). #R-55-149. TB 37'' M. W4, S., White; F., Bluish pink; tangerine beard. Two white Sdls. with red beards. Ricker '57. 4-5-57.
- *SPRING FESTIVAL- Etc.; (Gers. N.); R., 1942; etc.
- SPRING FESTIVAL (Hall-D.). #54-25. TB 36'' M. W1, S., White; F., White with buff haft; tangerine beard. Palomino X Sister of Palomino. 12-31-57.
- *SPRING MUSIC- Etc.; (Gers.N.); R., 1947; etc.
- SPRING PRELUDE (Jonas). #530. Border. 18'' M-L. Y1M, Cadmium beard. (Lord Dongan selfed) X P.C. #4548: (#10942: tall blue x pumila). Longfield '57. 2-6-57.
- *SPRING SUNRISE- Etc.; (Gers.N.); R., 1948; etc.
- SPRING TAN (Darby). SDB 12'' E. Y4, Yellow self with greenish spot on F. Welch H-503 X Blue Ensign. 10-10-57.
- SPRING TONIC (Crandall). TB 36'' M. Y3, S., pale yellow; F., dark yellow. Lady Mohr X Pink Formal. 7-25-57.

- SPUTNIK (Cassebeer). #439. Border B. 18" M. W2V, White plicata evenly stitched with border of violet. 5-B-20:(Ilse Louise x Valentine) X Blue Shimmer. 11-11-57.
- *STARLIGHT (Murrell 1929).
- STEEPLECHASE (Craig-Tom). #55-2. TB 45" E-Re-L. B1D, Steeplechase blue self. Sleighride Sib X (Headlands x M. McClellan). 6-28-57.
- STELLA SMITH (Lewis). #54-2-55. TB V1M. Blue Blazes X Anitra. 7-23-57.
- *STORMCREST, Etc; (Corey N.); R., 1951.
- STORMCREST (Corey) #23-L-1. TB 35" M. W1, White self; pale yellow beard, white tipped. Sdlg. #19J:(Snow Flurry x Cloud Castle) X Zephrene. 1-30-57.
- STYLE PARADE (Lapham). #20-53. TB 30" m. O1L, S., Light Safrano Pink, shading to O. Yellow; F., VL Safrano Pink with pale OY hafts. Paradise Pink X Muhl. Sdlg. #51-11. 7-10-57.
- SUGAR MOUNTAIN (Tuller). #4-S.R. TB 42" M-L. W1, White self, no haft markings, white style arms; pale yellow to Orange beard. Snow Flurry X Mrs. Stella Stedman. 11-12-57.
- SULTAN'S CAPITOL (Zurbrigg for Edmison). TB 34" M. RV1, Red-violet self; clean haft; self colored beard; some Mohr form. Sultan's Robe X Capitola. 1-19-57.
- SUNNY SPAIN (Hutchison). TB 36" M. Y4, S., Golden yellow; F., Red. Red Torch X Rainbow Room. H.C. RHS '57. Wisley Trial '57. Orpington '57. 3-30-57.
- SUPERLATION (Cook-P.). #13855. TB 36" M-L. W4, S., White to base of claw; F., light violet with margin of pale violet; beard, white tinged bluish). Blue Rhythm X Sdlg. #3550:(Blue Sdlg. x (Progenitor x Shining Waters)). 11-23-57.
- SURPRISE PACKAGE (Schmelzer). #29-H-57. TB 36" M-L. OR1L, Orange-pink self, F., flushed orange. Hazel E. X Happy Birthday. 6-18-57.
- SWAN PRINCESS (Birch-R.). TB W1, Pure white self; white beard. White Ruffles X Palomino. 8-14-57. Court of Iris '57.
- SWEET CHARIOT (Beardsley). #3-122-1. Border I. 26" M-L. S., Empire yellow; F., White with sanding of Cinnamon rose, border of yellow. Pluie D'Or X Chasseur. 7-11-57.
- SWEET JOY (Freudenburg). TB 42" M. Y5L, S., peach tint with lemon edge; F., lemon flushed peach, metallic green veins emerging from yellow beard. Susan Jean X (Chantilly x Midwest Gem). 9-30-57.
- SWEET 'N' SASSY (Mahood). #10-53. MDB 5½". E. RV1, S., Red-violet; F., Red-violet, slight blue overtones; blue beard. I. *chamaeiris* Correvon X Sdlg.:(Judy x Carpathia). 11-14-57.
- SWEET REGRETS (Douglas-G.). #1406. TB 38" EM. BV1D, Blue-purple self; blue-purple beard. Northwestern X (Barbara Adams x Gulf Stream). 10-23-57.
- SWEET ROSE (Hafner). #80-502. TB 28" M. R1M, S., Deep rose; F., Raspberry rose; orange beard. Dogrose X Unknown. 9-29-57.
- SWIRLING SNOW (Naas). #E-30-56. TB 34" M. W1, white self, beard tipped white. Sdlg. #355-48-51 X Sdlg. #B29-50.:(Sdlg. X Phoebe). 6-19-57.
- *TALANI- Etc. (Gers.N.); R., 1934.
- *TALISMAN (Murrell 1930).
- TAMMY (Schirmer-C.). #VA-136. TB 40" M. Y5D, S., Light brown; F., Blend of Brown, Pink and Yellow. (Aztec Copper x Midwest Gem) X Cascade Splendor. 10-8-57.
- TAN FANTASY (Greenlee). SDB 12" E. Y5M, S., Tannish Yellow; F., same with brown-tan swirl. ((#10942 x pumila) x Thisbe) X Unknown. Greenlee '57. 3-30-57.
- TANGERINE CARNIVAL (Austin). #TP-48. TB 42" M-L. R4L, S., Light pink; F., Light pink, almost completely covered with purple veins. Color Carnival X Clasmont. Rainbow '57. 1-2-57.
- TANGOLD (Voris). #GRPS-5350. TB 35" M. Y5L, Golden tan self. Pink Sensation X Golden Russet. 7-3-57.

- TAWNY EMPRESS (Mertins). #1. Onco-bred. 30'' M. V5D, S., Matthews purple, brown margin F., Indian L. & Dahlia Carmine, bronzing toward throat; black signal. Cross of C.G. White and Mohr Sdlgs. 7-8-57.
- TEAR DROPS (Beattie). #A-54-2. MDB 4½'' E. Y3M, S., Dresden yellow; F., Citron green bordered color of S.; White beard. Welch #G-508 X Primus. 5-11-57.
- TERRY LEE (Schmelzer). #34-H-57. TB 36'' M. V1M, S., Lavender-rose; F., same. Sdlg. #3-H-55 X Mary Randall. 6-18-57.
- THE GREAT MOGUL (Payne). #576. A. Japanese 3 petals, 46'' E-M. NV1D, Blackish purple self. Miss Simplicity X Imperial Robe. 8-28-57.
- TIDLE-DE-WINKS (Stern). Border I. 15'' L. W1, white including beard. Unknown. 10-10-57.
- TISTOPS (Craig-Tom). #55-12. TB 38'' EM. V5M, Blend of French lilac with hints of Burgundy, Old lavender and Rose. (Ballgown x (Savage x Cordovan)) X (Savage x Cordovan). 6-28-57.
- *TLAYA- Etc.; (Gers.N.); R., 1933.
- TOM COLLIER (Harrison). #147-48-1. TB 37'' M. VB1D, Dark violet-blue self. Quick Silver X Blue Valley. 9-24-57.
- TOM HOWARD (Wallace-M.). #55-412-1. TB 36'' EM. R1D, Red self, near cardinal R., some blended tones. Captain Wells X Pink Formal. 8-5-57.
- TOP HELEN (Tharp). #1-55. TB 38'' E-M. B1, Silvery Blue Self; styles and beard the same. Helen McGregor X Suiter Sdlg.: (Blue Champagne x Sylvia Murray). 6-22-57.
- *TORCHLIGHT- Etc.; (Richer 1931).
- *TORCHLIGHT- (Murrell 1938).
- TORCHLIGHT (Kelway). TB 30'' M. Y4, S., Copper gold; F., Terra-cotta red. Orange Glow X Unknown. Kelway '57. 12-31-57.
- TOY TOWN (Muhlestein). SDB 13'' E-M. B1M, brown overlay at haft. Deep Velvet X Great Lakes. Tell's '57. 2-23-57.
- TRENDARILLE (Schmelzer). #38-H-57. TB 37'' L. YR5L, S., Golden brown; F., pink tan and lavender blend, border same as S. Lacy Sdlg. X Ruffled Apache. 6-18-57.
- TRESSPASS (Horn). #C-150. TB 38'' EM. Y5, S., Golden brown; F., Flushed Burnt-gold; yellow beard. Golden Russet X Ballerina. 5-22-57.
- TRINITY ALPS. (Maxim). #53-26A. TB 38'' EE. W1, white self, with blue bud. Snow Flurry X Sierra Blue. 12-15-57.
- *TRISTE- (Murrell 1929).
- TROPHY (Linse). #Nscap-55-22. TB-Onco. 36'' M. B1M, S., Lobelia Blue; F., same, deeper at base of blue beard. New Snow X Capitola. 6-28-57.
- TRUDIE'S GOLD (Hays). TB 31'' M. Y1L, Deep cream self; tangerine beard. Unknown. 5-30-57.
- TURBO-FIRE (Leland). #55-11. TB 36'' M-L. R3, S., Mild red; F., Black-red; brown beard. Ebony Echo X Defiance. 11-23-57.
- TWO BITS (Albright). #54-07. MTB 22'' M-L. R4L, S., Pink; F., Yellow. Sdlg.: (#42-10 x Ruffled Bouquet) X Heritage. H.C. '57. 7-19-57.
- VAIN VICTOR (Marx-W.). #56-118. A. Japanese 42'' M-L. W4, S., White center bordered Patriarch purple, white veins extending into border; Styles creamy-pink, narrow edge of violet. Unknown. Marx '57. 1-2-57.
- VATICAN PETITE (Jonas). #682-1. MDB 7'' E. V1D, Purple self; glowing purple beard. #5243P.C.:((Socrates x Mars) x (*I. pumila*)) X #278:((*I. pumila* x *I. mellita*) x Self). Longfield '57. 2-6-57.
- VIO (Linse). #Nscap 55-05. TB-Onco. 36'' M. V1D, Bishops Violet Self; same blue tipped beard; curly styles. New Snow X Capitola. 6-28-57.
- VIOLET LUSTRE (Payne). #598. A. Japanese 6 petals, 40'' M-LM. V1L, Lavender violet with large halo and veins of Fleroma violet. Styles Haematoxlyn violet. Cobra Dancer F1 X Unknown. 8-28-57.

VIOLET MOHR (Suiter). S-M-#4. TB 38'' EM. V1M, Ruffled violet self. Silver Tower X Capitola. 7-2-57.

VIOLET RHYTHM (Whiting). #54-15. TB VL. V1, Spectrum violet self, smooth haft; bronze-yellow beard. Vatican Purple X Windsor. H.C. '57- 12-31-57.

VIOLET RIPPLES (Maxim). #52-8E. TB 42'' M. V1, Violet self, light flush around tip of beard; Yellow beard, fading to blue at tip. Snow Flurry X Chivalry. 12-15-57.

*VIOLET STAR- Etc.; (Gers.N.); R., 1942.

VIOLET THRILL (Hamacher). #5-10-50. TB 36'' M. V1D, deep violet self; beard tipped violet. Snow Flurry X Chivalry. 7-31-57.

VOLUNTEER FIREMAN (Cline and Durrance). #1-55. Eupogocyclus hyb. 20'' M. R3D, S., Indian Lake; F., Cardinal Red with longitudinal black stripes. Oyez X Unknown. 2-6-57.

WARM WELCOME (Branch). #5533. TB 38'' E. Y5M, Golden Apricot self; tangerine beard. (Pink Tower x Pink Formal) X June Bride. 6-14-57.

WAVE CAP (Schliefert). #S-52-33. TB 32'' M. B1L, Flax Blue self. Snow Flurry X Chivalry. 12-2-57.

WAXING MOON (Fay). #53-44. TB 34'' M. Y1L, Clear light yellow; yellow beard. Fay Sdlg. #47-2 X (Sunray x Dolly Varden). H.M. '57. Fay Gard. '57. 2-21-57.

W. B. MAC MILLAN (Conger). A. Louisiana 34'' M. R3M, Red bitone; chrome yellow signal. Bayou Glory X Acadian. H.C. '57. 7-19-57.

WENATCHEE (Noyd). #N3-6. TB 28'' M-L. Y5M, Blend of tan, Burnt Sienna, flame and green; orange beard. Brown Sdlg. X Firecracker. 7-3-57.

WHIFF O' SMOKE (Payne). #594. A. Japanese 6 petals, 40'' M. Light ground overlaid dull dark purple, blue halo and veins. Styles blackish red-purple. Sdlg. #271: (Sdlg. #30 x Sdlg. #82). F2. 8-28-57.

WHIMSY (DeForest). #55-12-S. TB 36'' M. VY4D, S., Medium violet; F., Brown. (Sdlg. #13-47H x Cloudcap) X Sib. Irisnoll '57. 3-4-57.

WHIRLIGIG (Housley). #VV53D. TB-Onco. 42'' M-L. YV5, S., Sandalwood, infused olive; Violet flush; F., Lavender flushed; Bronze-gold shoulder, reverse olive; violet stripe. Sea Lark X Lady Mohr. 7-26-57.

WHIRLING GIRL (Rundlett). #53-56. TB 34'' M. W2, S., White with prominent light blue-violet stitching at edges; F., White, narrow light blue-violet stitching; crests blue-violet. Snow Crystal X Aldura. 11-12-57.

WHITE CORSAGE (Corliss). #56-S-22. Spuria 38'' L(spu.). W1, Large white self. Uncertain. 7-9-57.

WHITE ELF (Doriot). #8-56. MDB 7'' E. W1, Warm white self. Unknown (Sib-Blue Frost). 8-20-57.

WHITE FRAGRANCE (Stambach). #18-49. TB 35'' L. W1, White self. Buckskin X Orange Bishop. 8-2-57.

WHITE LARK (Corliss). #57-S-10. Spuria 54'' E(Spu.). W1, S., White; F., White with small gold signal. Larksong X Wadi Zem Zem. 7-9-57.

WHITE PARADE (Roach) #53-19-C-1. TB 34'' LM. W1, White self, no reticulations. Snow Flurry X Great Lakes. 11-7-57.

WHITE PIQUE (Hanlon). TB-Onco. 32'' ML. W1, White self (onco form). Winter Carnival X Elmohr. 2-6-57.

WHITE SWIRL (Cassebeer). A. Siberica 40'' L. W1, pure white self. Unknown. H.M. '57. Cassebeer '57. 3-23-57.

WHITE VIOLET (Brees). #55-13. TB 36'' M. BW1, S., Blue-white with hint of violet; F., Blue-white with lighter blaze. Snow Flurry X Great Lakes. 6-23-57.

WILD BLUE YONDER (Knopf). #1772. TB 34'' M-L. B1D, Moorish blue self; beard. deep orange in throat. Chivalry X Danube Wave. 8-21-57.

WILD CANARY (Roberts). #B-400. Border I. 15'' M. Y4, S., Empire Yellow; F., same overlaid Veronica Violet, with yellow border. Widget X Welch Sdlg. #444. 6-26-57.

WILLOW BROOK (Hall-H.F.). #BL-10. TB 40'' M. B3, S., Light blue; F., shade darker; orange beard, and haft markings; White Parchment X Sdlg. #W-7. 11-20-57.

WINGED CHARIOT (Payne). #615. A. Japanese, 3 petal, 44'' LM. W2, S., feathered Pansy violet; F., White. Lilac Pageant X Miss Simplicity. 8-28-57.

WINGED FUCHSIA (Austin). #TP-47A. TB 42'' M-L. RV1, Bright fuchsia self; red-tangerine beard. Radiation X Pink Formal. Rainbow '57. 1-2-57.

WINGS OF FLIGHT (Austin). #JS-28. TB 42'' M. V4, S., Pearly mauve; F., white, margined pearly mauve; light yellow beard; lavender-white horn. Sdlg. #JS-M-176B X 638. Rainbow '57. 1-2-57.

WINTER LACE (DeForest). #57-143-S. TB 34'' M. W1, White self with lace edges, (Sdlg. #18-48 x Hall White Sdlg.) X Party Dress. 12-31-57.

WINTER SUNRISE (Corey). #38-N-1. TB 34'' E-M. W1, S., White; F., White with smooth gold haft & beard; styles, gold ribs & edges. Gussie X Sister Sdlg. H.C. '54. 2-8-57.

*WITCHERY- Etc.; (Murrell 1929).

WOLVERINE (Riggs). #1-C-26. TB 32'' M. Y1L, Egyptian Buff self, haft veined; orange beard. Spindrift X Paradise Pink. 6-27-57.

WONDERMENT (Cook-P.). #19255. TB 36'' M-L. W4, S., White; F., Pale Bluish Violet paling to white in upper part; deep Chrome beard. Cahokia X Sdlg. #11253: (Blue Rhythm x ((blue Sdlg. x Progenitor) x blue Sdlg.)). 11-23-57.

WOODMONT ROSE (Knopf). Calif. 12'' M-L. W1, Creamy white; fuchsia signal patch. Unknown. 8-21-57.

*WRAITH- Etc.; (Murrell 1929).

YANKEE CLIPPER (Beattie). #55-56. TB 38'' M. YV4, S., Golden tan-brown; F., pale lilac, bordered color of S.; orange-brown beard. Mexico X Moontide. 12-31-57.

YELLOW PAGODA (Madsen). #10-53. TB 34'' L. Y1M, Lemon yellow self, laced & ruffled. Sdlg. #6-50-53 X Queen's Lace. 8-5-57.

YELLOW SKIRT (Reinhardt). #57-63. TB 36'' M. W4, S., Pure white; F., Pure Sulphur yellow; yellow beard. Pinnacle X Fairday. 11-6-57.

ZOMBIE (Craig-Tom). #55-22. TB 4'' M-L. R1D, Intense rich red, near black. ((Port x Molten) x (Cordovan x Rosired)) X Bang. 6-28-57

View of a portion of the Florence Iris Gardens. At the base of the hill flows the River Arno, and across the Arno is the beautiful city of Florence. The famous Ponte Vecchio is out of sight under the curve of the hillside.



BULLETIN of the AMERICAN
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THE AMERICAN IRIS SOCIETY

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The President's Corner

The 1958 Annual Meeting of the American Iris Society sponsored by Region 2 and the Empire State Iris Society at Syracuse, New York, is now history. Our friends of Region 2 prepared and staged a very fine convention for our enjoyment. On behalf of the Society I would like to thank the entire committee for its untiring efforts and particularly Dr. L. F. Randolph, the Chairman of the Convention Committee, and Dr. William G. McGarvey, the President of the Empire State Iris Society, for their excellent leadership in making this project a success.

There were several reports accepted by your Board of Directors at Syracuse that should be called to your attention. First is the report of the Seal Committee under the Chairmanship of Mr. Hubert Fischer. This committee has been studying for the past year the possibility of adopting a new seal for the official use of the Society. The report of the Committee was completed at Syracuse and the Board of Directors accepted the recommendation of the committee relative to the use of a new seal. The drawing was prepared by the committee in co-operation with the artist at the Bailey Hortorium at Cornell. We are indebted to this committee for a very fine job. In the near future the Official Seal of the Society will be available for use of the membership.

A second significant report was that of the Scientific Committee. Dr. Lee Lenz reported on the accomplishments of the committee and then suggested a plan for the securing of pertinent information concerning the disease problems of irises. It is the desire of the Scientific Committee to find out what diseases are most prevalent in various areas of the country, under what conditions these diseases thrive, and how important they are to the proper growing of iris.

In order to secure this vital information a questionnaire is being sent to each accredited judge of the Society. It is our sincere hope that each of you who receives this questionnaire will fill it out with care and return it to Dr. Lenz. These answers will be vital to the development of the Scientific program of the Society. We have been able to secure the interest of pathologists in several major Universities. We want to be in a position to benefit by this interest. Certainly all iris growers are aware of the ever increasing problem of disease. The time has come when we must work together to seek the necessary controls.

The third significant report is that of the Committee preparing the book on iris. Dr. Randolph has worked diligently on this project for the past two years. The manuscript is now in the hands of the Van Nostrand Publishing Company, and has been tentatively accepted for publication. Dr. Randolph has been authorized by the Board of Directors to sign a contract for the publication of this book which is being sponsored by the Society. We feel that this is the most comprehensive book on irises published in recent years. You will most certainly want a copy for your library because of the information it contains and because it has been written

by many of the most informed people of the iris world today. It is our hope that this book will be available to the membership about a year from now.

The final action taken by the Board of Directors was to fill the vacancy on the Board created by the resignation of Mr. W. F. Scott, Jr. Mr. J. Arthur Nelson of Omaha, your present Exhibition Chairman, was appointed to fill this vacancy. Mr. Nelson with his wide contact and experience will make an excellent addition to your Board of Directors. We wish him well in this additional assignment.

MARION WALKER



Field of seedlings, garden of Dr. L. F. Randolph, Ithaca, N.Y.

Looking Backward—

A Kaleidoscope

LOU TARR, N.Y.

Sunday afternoon, wind is whipping the branches of the elm outside my study window. Rain that threatened this morning has come. Not a day for looking at gardens but a time for sorting out confused thoughts and deciphering illegible notes, for setting down in orderly fashion overtones of the last four days.

You who were our guests have gone. A few are home, many are on the way, some are following iris-flowering northward, others just vacationing. A hard working committee is taking the rest its members deserve. Those whose gardens are still "on tour" for local residents are a little glad the weather is not for visiting gardens.

A convention does not happen overnight. This one germinated four years ago. As time went on the pace quickened—months of planning with meeting that followed meeting, problems, headaches, disappointments, last minute changes. When it's the kind of convention that is tied in with weather the problems are multiplied. What is average peak-blooming time? When can we expect the last bad frost? How far ahead must we reserve space for meetings, dinners, visitors? There are letters to write, phone calls that must be made, arguments (good-natured, of course), and many a "Please, dear Lord."

But the time comes. Good nature and sociability take over. Storms and frost do less damage than was feared. Enough blooms open for a good show. Gardens are in excellent shape.

Andy Keller, our much-maligned meteorologist, scanned the skies, held up a finger to test the wind, sniffed, and decided to give us four good days, better than par for Central New York.

Mac repaired the damage done by the storm to his hillside garden. Boots' lawn dried up. Tom's hail-and-frost damage wasn't noticeable. Lowell had some blooms held back by unseasonal cold, but plenty of color was showing. That ring of burned sod at the Childs' was from old tires they spent most of the night burning, to ward off frost.

The one bad storm came at a time when most of us were indoors. Frost as unusual after mid-May as a diploid iris among 1958 introductions, hit hard the morning of the seventh, but the "Please, dear Lords" helped.

Those of us who are familiar with her work weren't surprised that Marion Collins took top honors with her arrangements. Nor would we have been surprised if the judges had had trouble deciding which of her two arrangements deserved the "Best in the Show" award. The iris is not the easiest flower to arrange, I'm told.

Here are notes I made at the show, one man's fancy, remember, and he's not a fancier (figure that one out, if you can).

Spanish Peaks, good white; Mystic Melody, very nice; Gold Sovereign, deep yellow with touch of green on the falls; Golden Sunshine, a clear yellow; Cloud Cap, large pink, lovely. The seedling classes have promising material, will it do more than promise? The Reverend Scott Hauser took Queen of the Show with his Cascade Splendor.

Afterwards we had dinner at the Dutch Coffee Shop, where we saw a scattering of AIS labels.

This was the first National Iris Convention in New York state since 1929. Only three regions were not represented. Round Robins are now two and one-half years old, a "friendly association among iris growers over the nation and throughout the world"—210 robins, 18 divisions, 2100 members, and a waiting list.

If not all regions and states were represented, all accents were—flat New England; western burr; southern drawl; Texas, well, Texas; the couple from Cuba, and the fifteen-year-old high school boy from Puerto Rico—did you know he was on a summer vacation jaunt to Europe?—a reward from his father for excellence in school marks, all "A's," I understand.

Business snapped along under President Marion Walker, and closed in time for all to enjoy sociability, meeting old friends and making new, the cool drink after a warm evening.

Necessity for earning a living kept this columnist from taking in the Rochester and Ithaca trips, but I understand one bus got lost three times in Genesee Park and four times at the college. The Ithaca trip was made by way of some of Central New York's scenic spots. One tripper, who is familiar with all of them, wondered if the bus ever would get to Ithaca. It did. The Randolph garden was a blaze of color, according to the enthusiastic report of those who went, the meetings at Cornell, technical.

Thursday night's meeting at the hotel was good for "shutter bugs." John Fish had the know-how of picture taking but was weak on his botany, which caused amused chuckles. Thanks, John, for telling us that simplicity of subject, proper background, and good lighting in the right places are the three important factors for successful color slides, a lesson well learned, for one shutter bug was later heard telling another to be sure he used backlighting when taking close-ups of iris.

Friday night talks at the hotel were deep—would it not be better to have a few for those not so steeped in the fine points?—well given, and simplified as much as a complex subject such as genetics can be. Upon a chance meeting with visitors wearing Walpole, Mass., labels I found they were Mike Shergals' daughters. I knew Mike thirty years ago when we lived there and he and I worked for the same concern.

Up betimes, very much against my principle on a Saturday morning, I reached the hotel as busses were finished loading but made the last one. Professor MacAndrews, with Mrs. Mac, was greeting visiting irismen at the foot of their garden. I listened to gasps of delight from those who hadn't seen Mac's garden before—we know it as one of the finest around

and the work of one man. I took a shot of Mrs. Guy Rogers by the Rogers' first introduction, Senorita Ilsa, and hunted up Mac so that Mrs. Rogers could meet him and tell the story of naming this iris for a young Guatemalan who lived with them at one time, but you have to hear Mrs. Rogers tell it to enjoy the full flavor. Here, too, I saw a specimen of the Bristol cone pine, one of which is supposed to be the oldest living tree.

On the way to the Meyer garden I met Mrs. Walrath and was delighted to learn that she knew the story of the bettlebung tree, which we'd seen in Mac's garden—but that's another story. We discussed Bishop's weed and another pernicious lawn pest we have but which the others thought to be a "pretty little thing" when they saw it later in Tom Hall's lawn.

Where Mac's garden is compact and has many unusual and rare plants, trees, and shrubs, the Meyer garden has wide, open spaces with guest plants in a long border at one side—the Mecca of "shutterbugs" with close-ups the order, a colorful perennial border with the emphasis on iris. Here notebooks and cameras were much in evidence.

The Hall gardens, a hybridizer's garden, with iris in nursery rows for study and comparison, featured many of Tom's introductions and those of his father, the late H. F. Hall. (I hope the samples of *veronica filiformis* were not taken home or that those succeeding in growing them will lose the friendship of their neighbors, for it is a pretty, tiny blossom, but a bad lawn weed.)

Beck's Grove was a welcome respite with an excellent lunch, hot and filling. Found my next door neighbors were the Tirrneys from Sharon, Mass., and it was from the Sunnymede Gardens in Sharon that we got our first iris in the early twenties.

It took the bus drivers, the bus hosts, and Helen McCaughey, from Oklahoma, to land us at the Hawthorne's garden in Verona. There's a gal to watch, Helen McCaughey. After seeing her in action Saturday I predict she'll put on a show next year you'll long remember.

Hawthorne's garden was another place for cameras and notebooks, with a large bed of ferns an attraction, and many fine iris. There had been a bad frost that morning, and Lowell was sad that more iris hadn't bloomed, due to the cold.

We had a restful ride along the shore of Oneida Lake to the last stop, the Childs' garden in Central Square, where there is a row of Dykes Medal winners in order by years. A swallow, irritated because of the crowd's keeping her (him?) from the nesting box offered an amusing interlude. Hot coffee, doughnuts, cookies tided us over from fried chicken at the Beck's to roast beef at Syracuse.

A quick change, with only an hour to do it, and the last feature was on, the usual announcement of awards, credits where credits were due, and Dr. Sam Emsweller from the government's great experimental station in Beltsville, Md. Chemicals tested at this USDA lab will make tall plants from short ones, short plants of tall ones, plants bloom in warm

weather that normally flower in cool—no end to what they can do with plants (and turkeys). We were given slides and more plant biology, a simple defining of chromosomes with illustrations.

A final, "Good bye, good luck, God bless you," and the convention was over. And so the kaleidoscope ends, a variegated changing pattern, impressions less jumbled, notes in better order, but the brilliance of the iris goes on, in gardens and in our memories.

I'd like to close with a story, a true one, about the traveling salesman and IRIS. He was staying at the hotel and on the way to his room wandered over to the corner of the lobby where the show was staged. He'd never seen iris like these before, only some puny wild ones along the road. Amazed at their beauty he wanted to know where he could admire them.

Isn't that what makes a show like this worth while? Shouldn't we and other similar clubs and societies have as our objective interesting others in plants and gardens, teaching them the secrets of a fuller life through working with Nature, helping them to understand, and through that understanding, to love her and her works?



Garden of Mr. and Mrs. H. C. Porreca, West Henrietta, N.Y.

Convention Visits

The Porreca Garden

BOB CARNEY, Memphis, Tenn.

In spite of the high winds prevalent at the time of our visit, the garden of Mr. and Mrs. H. C. Porreca of West Henrietta, New York, was one of the outstanding gardens seen at the convention this year. The iris were well grown, and although a large number of the guest iris were not in bloom as seems to be customary at our annual conventions, still there was plenty of bloom to be seen among the guest and named varieties, as well as in the seedling patch.

In checking over my program I find that a fair number of the named varieties rated stars and they are as follows: Alpha (D. Hall), a smooth pink with good form; Baby's Bonnet (Baker), very nice, rated as a pink amoena, the falls had the pink which was lacking in Memphis; Biscay Bay (Schreiner), a smooth frosty pale blue which I, personally, prefer to Eleanor's Pride; Curled Cloud (Hinkle), a magnificent white which can really take the weather (will not be introduced until 1959); Dark Springtime (Shortman), a tall well-branched dark lavender blue with good form and substance; Demetria (Hinkle), a blue slightly deeper in color than medium blue, with outstanding form and substance; Helen Novak (Hinkle), a medium blue of nice form but not quite as good as Demetria in my books; King's Choice (Schreiner), a deep midnight blue which attracted a great deal of attention, falls slightly large for rest of flower but still very nice; Memphis Lass (Shortman), a bright plicata which performs well everywhere I have seen it; Saint Jude (Gatty), a beautiful light "blue" blue which seems to hold its color well, nicely branched stalk with plenty of buds; Symphony (Hinkle), a pale blue approaching spectrum blue in color, with wonderful form and substance.

Mr. Porreca is a very discriminating hybridizer and as time goes on we will be hearing more and more of him. In his seedling patch there were so many nice things to see that it was impossible to do them justice in the time allotted us, and to make things worse, a sudden rain storm forced us to cut our visit short. We did get to see a number of very choice seedlings, however, and of these several will more than likely be registered and introduced in the next few years. Some to be on the lookout for are: #140, a smooth medium blue with nice form and substance; #191, a tall, well-branched deep lavender blue with good form, was a standout among the seedlings at the Iris Show; #226, a smooth deep apricot self with good form which is the nicest thing I have seen in this color range; #243 which bloomed for the first time this year, with standards that are a clean baby pink, falls that are white bordered with a deeper pink. I could easily have spent a half day in the seedling patch alone, but unfortunately, time did not permit.

The Garden of Mr. and Mrs. Ben Meyer, Fayetteville, N.Y.

GEDDES DOUGLAS, Tenn.

The Meyers live on a country road with a very picturesque name—Woodchuck Hill Road. My erstwhile friends and iris companions, particularly Bob Schreiner, objected strenuously to my southern version of this “groundhawg rise.” But anyway, on this road I saw one of the finest rock fences I’ve ever seen, and I’m a rock fence expert from a rock fence country. This one ran for a mile or so, up and down the road, four feet high and over three across, and ended at the Meyer place.

There were irises here galore, planted in long beds around several acres of wooded hillside, gently sloping away from the house. I was particularly impressed with the iris from the Empire State hybridizers. There was Ken and Mary Ella from Rundlett, two fine flowers in deep blue and apricot. Exotic Blue and Morning Sunlight are Randolph iris. Exotic Blue stole the show here as it did in nearly every garden, a queer thing in subdued blue with olive-green shoulders and beard.

Lady Ilse and Helen Collingwood were here from Kenneth Smith and a flock of interesting seedlings from Dr. William McGarvey. There were ten fine numbered seedlings from T. W. Hall, son of the famous hybridizer, the late Mr. H. F. Hall, whose Hy-Blaze, Indian Red, and Patrician were performing excellently. Patrician is a most noteworthy variety. The sheer size and breath-taking beauty of the single flower so numbs and captivates the viewer, that the stubby stalk, lack of branching and buds are completely overlooked.

There were several standout iris in the Meyer garden from outside the state of New York. Big Ute, a Wallace red, was never bigger, and his Cathedral Bells, a delightful pale pink. The Wills plicata Belle Meade was immaculate in its blue and white. I noted Mystic Melody and Northwestern, two oldies now, but always good. From Lloyd Austin there were two to please the collector of oddities, Horned Skylark and Plumed Delight. These things remind one of the mustachios of the gay nineties, stiff and waxed and pointed.

The Mack Garden

J. H. HOAGE, Richland, Wash.

The irises in the garden of Mr. and Mrs. Warren Mack in Rochester, showed fine growth and evidence of excellent care.

The following varieties were noted as being the outstanding irises in the garden:

Caressa (Buss), blue self with white spot in the center on the falls. The flowers are large and ruffled. Branching is excellent.

Olson 52-20A, this seedling attracted much attention. A light pink self with a pink beard. Stalk is tall and branching is good but a bit high. Substance of flower is good.

Bright Secret (Fass), a bright gold self with contrasting white spot in center of falls. Stalk is taller than Prospector, but not as tall as Front Page.

Onondago (T. W. Hall), a smooth dark red blended self. This variety was excellent here and in other New York gardens. Did not burn as did several other red blends seen on tour.

Pearl Blue (Buss), a fine light blue self in a class where we need more irises with this color, such as Praiseworthy. Pearl Blue has excellent branching and large, well-formed flowers.

Sassafras (Scott), a two-year clump of Sassafras showed seven bloom stalks and much increase. The flower has pink standards and light apricot falls with bright beard. Clump had garden quality, while each stalk was potential show material if desired.

Ken (Rundlett), a fine, smooth, medium blue self with excellent substance. Branching is balanced with medium to large flowers. This with Mystic Lakes would make a pair of medium blues for the garden that would be hard to beat.

Muhlestein 33-52-25, a second seedling attracting much attention was this orange apricot self with a bright flamingo beard. Falls are very flaring and flower has good substance.

Arctic Splendor (Dubes), a fine bitone white with white-white standards and yellow-white falls. Substance appeared good as did branching and placement of buds.

Lemon Fluff (Olson), a nice lace-edged flower, light lemon yellow standards with white falls edged in yellow. Stalk was tall and branching appeared good even though the first blooms had faded.

There was a collection of the so-called "horned" iris from Austin in California. From the comments overheard by the writer, these are destined to be of short popularity as the only unusual or unique feature is the elongated beard tip. Flowers lack form, colors are average for plicatas, and branching is high.

Actually the "horned" iris is appearing in many seedling beds this year. Tom Craig has had them for over five years. For the collector of oddities, and novelties there are Blue Surprise, Horned Skylark, Mulberry Snow, Plumed Delight, Unicorn, and Clementina (a flat type with weak standards that flop open).

Real Gold (Austin) is a conventionally formed iris, which is the color of natural gold, not brassy, not yellow. Onco type—round form, domed standards, flaring falls, light veining make this iris a favorite. Stalk is not tall, but bloom comes early and lasts through the season.

The Lowell G. Harder Garden—Rochester

JAKE H. SCHARFF, Memphis, Tenn.

“High on a Windy Hill” would aptly describe the new planting of Mr. and Mrs. Lowell G. Harder. For when we visited this garden at midday on Thursday, the wind was almost of gale proportions. The Harder home is situated atop a hill, surrounded by iris plantings in all directions on the sloping terrain. Here, we first saw the most unusual iris of the meeting—Dr. Randolph’s Exotic Blue, a nicely tailored slate blue with greenish yellow hafts and a brown and blue beard. Alongside was his seedling R53-158, a pink with a matching pink beard.

Withstanding the blasts of the terrific wind were: Goodman’s Golden Shell, a butter yellow with matching beard; Rundlett’s marine blue Ken and his Inner Light, a blue and white plicata; Lewis’ tailored orchid-rose Mighty Sweet; Cassebeer’s large flaring cream Sweetheart’s Folly; the chickory blue Vale Yndaia of Mert Brownell; Mrs. Noyd’s purple-red Royalty Velvet and her Lemon Meringue, a crinkled lemon and white.

Seedlings under number showing promise were: Harder’s 308-1, a lavender (Snow Flurry X Capitola cross); his 403-3, a large broad hafted white with yellow beard tipped blue and his 403-13, a large ruffled blue-white; Porreca 101, a light blue, with Snow Flurry branching and his 143, a ruffled light blue with blue-tipped beard. I also noted McGarvey’s 56 Ola Tob 1, a nicely branched glowing brown with rich yellow throat and beard.

While the above are all that I made notes on, there were many iris in the Harder garden showing promising buds, as for example, Mrs. Reynold’s lovely Azurehaven. Other blooms were past their prime or were wind damaged. So I have probably omitted reporting on some very desirable and interesting iris in these comments.

Garden of Mr. and Mrs. John H. Farnham

LLOYD ZURBRIGG, Canada

The guest iris here were well displayed in good clumps of easy access.

Wedding Ring, wider and of better form than others of these plicata recessives. It was drawing many by its contrast of lemon-gold with shiny white. The name applies to the gold ring around the falls.

White Sprite, very white, and nicely rippled form on a good stalk.

Belle Meade has stems that lean outward, but is a lovely improvement on Blue Shimmer.

White Peacock is really a pale blue here, but of lovely form and texture.

Deep Black gave a fine display. The very smooth falls are close to jet black and severely tailored in form. The standards are dark violet. This iris has a very rich fragrance.

The iris that pleased me were not all new. Desert Song was excellent. Other old ones that held their own with the new were Aldura, Bellerive,

Ruffled Organdy, Zantha, and an especially nice display of Louise Blake. Newer ones that looked very well were Frances Craig, Lady Ilse, Sable Night, Eastmont (though its stems lean out), and a perfect mound of bloom was on Ebony Echo.

Seeing Bali Belle for the first time was interesting, and I was glad to see Santa Cruz again, though not so many share my liking for its completely lined falls.

If I were forced to pick my favorite of all, it would perhaps have to be Wedding Ring, which called me back several times to be re-admired for its many fine features.

Garden of Mr. and Mrs. T. W. Hall, Manlius, New York

HAROLD W. KNOWLTON, Mass.

Early on a cold evening our bus stopped at the Hall gardens. Mr. Hall is the son of the late H. F. Hall, whose beautiful iris Patrician—white, widely flaring with golden shoulders—won the Franklin Cook Memorial Cup at the convention. Many of his father's irises were growing in clumps in their garden, including such well known varieties as Golden Rule, Coronation Red, Coronation Gold, Hallsworthy, Sunset Glow, and Radiant Red. At the side of the house was a long bed which was in shade. Here was Mr. Hall's Gold Ensign, a rich deep yellow with good branching and substance and a matching beard. Seedling W 49 was a white of heavy substance, which will undoubtedly be named.

Quickly moving to the welcome sunshine at the back of the house we found a large area planted with rows of irises, and beyond this was another large planting. Particularly I noted his Onandaga in a large clump full of bloom stalks. It is a rich mahogany red self, flaring and ruffled closed standards, with a clean haft and a dull beard. There was a sheen to the flower which was most attractive.

Mr. Hall's W 74, now registered as Snow Top, was but one of a number of white seedlings which showed promise. It is a white self with a lemon beard, domed standards, ruffled and flaring. W-90 and W-91 were excellent whites. Mr. Hall was very cordial and we spent an enjoyable time wandering up and down the rows while he pointed out the different varieties.

In the guest bed, at the side of the house were Geddes Douglas' Girl Friday, a pink with a rose-pink beard; three stalks of Deep Black; Lap-ham's Happy Wanderer, a fine red; Big Game; Bronze Star; Firebird; Jan Hess; Olympic Star; Ruffled Taffeta; Surrender; Texas Way; and many others. A very unusual color was Benton Cordelia, a lavender with a turquoise beard. A long row of Royal Ensign, the Siberian originated by H. F. Hall, glowed in the sun with the bright blue signal patch which makes it distinct from other Siberians.

The Garden of Professor and Mrs. A. H. McAndrews

HUBERT A. FISCHER, Ill.

We had covered many miles during the past four days, had seen hundreds of irises, many new varieties which we had been wanting to see, and had made copious notes. We had visited many beautiful gardens, each different and all lovely and interesting, but upon entering this garden the first thought I had was that here was one that was really different.

The garden is built on a gradually rising incline, framed by towering spruce, pine, hemlock, fir, and larch trees. There are evergreen trees of every description, including a specimen of *Metasequoia*. We first encounter a rose garden to the left beyond which is a pool against a backdrop of various kinds of low-growing evergreens with a fine specimen of Albertina spruce standing guard above the others. A miniature waterfall sings its way down to the pool and colorful columbine, lupine, Oriental poppies, and pyrethrum are blooming in profusion, and a dogwood looks on from above. There is a small rockery to the extreme left in which are growing many choice and rare gems, several varieties of ladyslippers, gentians, auricula and polyanthus primroses, and many carefully guarded tiny treasures. There is a plant of ramondia which has been growing in a rocky nook for twelve years. To the right is the border with the guest iris planting where the most of the members are congregating. Everywhere is color, we notice a fine specimen of daphne Somerset and deep red Japanese maple.

The winding paths lead on and up to terraced gardens, always bringing new surprises. One leads to a shady corner under the evergreen trees, a resting place surrounded by azalias, rhododendron, ferns and shade loving plants, then on to a stone stairway and continues, curving through a woodsy section in which many wild flowers are naturalized and emerges at an open garden. A grass plot with inviting chairs, is curtained on one side by bush roses, and before us are peonies, lupines, columbine, Siberian and bearded irises, lilies showing buds, and stalking delphinium. Here is an inviting resting place, and we can look ahead and down on the entire garden, a beautiful sight. The view actually shows a series of individual terraced gardens with paths and stone steps leading in different directions from one to another. There is a rocky border of sedums, paths lined with hostas; violas grow among the rocks, and there is evidence of the past beauty of tulips, daffodils, and other spring flowering bulbs. Everywhere there are rare and unusual shrubs and trees. The brilliant foliage of the Japanese maple contrasts with the fresh green of sweet gum and that of the flowering crab apple trees with the peach, dogwood, and redbud. The wealth of material growing in this garden is amazing, if a plant is hardy in this climate, I am sure it can be found here. There is a promise

of beauty to come in the hemerocallis, lilies, delphinium, and many summer flowering plants. This is a garden which will be colorful from early spring until frost cuts back the last chrysanthemums. Here is a garden that is lived in with many resting places at which to linger and study and enjoy. This is really a laboratory of growing plants where every specimen receives special care and treatment. No outside help could tend this garden without harming some treasured plant. I was amazed to learn that the entire garden covered but one acre, as the illusion created is of much more. It is impossible to do justice to the description in the space allotted here, and the limited time allowed made it difficult to see any but the high spots. I hope to have the good fortune to visit here again at a time when there are no buses waiting and there is no whistle to urge me on.

The Garden of Mr. and Mrs. E. L. Bisdee

GEDDES DOUGLAS, Tenn.

I never cease to be amazed that one can travel from one garden in full bloom to another a few miles away, and find it so much later in its blooming period. In the Farnham garden there was peak bloom; in the Bisdee garden, some bloom and quantities of buds. Snow Flurry was in its glory. Dark Boatman made a brave display. Limelight was blooming in a wonderful clump.

One bed I noted contained May Magic, China Gate, Caribou Trail, Truly Fair, Big Ute, Black Taffeta, and several other new ones. I would love to have gone back in four or five days and seen them in their sudden burst of glory which was sure to come.

Stems and spruces, buds and barns, shade and Limelight, flowers on a peaceful street. Thank you, Mr. and Mrs. Bisdee.

The Hawthorne Garden

MRS. VALENTINE JACOBSON, Utah

Broad lawns and wide perennial borders are featured in the Hawthorne garden. The air of spaciousness is pleasant, and goes very naturally with the remodeled, white-frame, farm house which is the residence. There were plenty of iris there, but they were not co-operating too well. Bloom was somewhat sparse on the day the convention crowd arrived.

Soft Answer and Castle Rock were exceptions. Both of these fine varieties were in good bloom. Lupines, columbine, and ferns grew everywhere. A long border of older varieties was blooming very well, but with considerable leaf-spot in evidence.

Garden of Mr. and Mrs. William Childs

JAY C. ACKERMAN, Mich.

Guarded by a gigantic maple tree, no less than four feet through the trunk at the ground, the home and gardens of Mr. and Mrs. William Childs was the final stop of our busses on Saturday, the last day of the meeting. This carefully planned garden took the form of many beds cut into spacious lawns. Large evergreens furnished a backdrop, and two sprays of water playing into a large pool added a focal point to the nicely arranged beds of iris, poppies, peonies, lupines, and other perennials. Unfortunately, we arrived a few days early for the full effect of color in this garden, but the potential could be envisioned. Iris bloom was at about a twenty-five percent level overall although a very fine list of guest iris was not participating in the bloom to that extent. We were told that practically everything in the garden had been covered the night before to protect them from a heavy frost, and there was much to be covered. Noted as doing and blooming well were Duet, Consolation, Blue Serene, Magic Sails, and Utah Sky. Pseudacorus was blooming in the pool. Of special interest and performing well, was a complete collection of American Dykes Medal winners, from San Francisco, first winner in 1927, on up to Violet Harmony, the 1957 winner. The Childs extended their hospitality with coffee and homemade doughnuts for every one.

Garden of Fitz and Fanny Randolph

DOROTHY DENIS, New Jersey

The Randolphs have a unique garden. It is situated upon the very top of a high hill, almost a mountain, directly above and behind the town of Ithaca.

The house is contemporary in design, and the garden consists of a series of long beds cut into the grass, designed to hold the many guest iris sent to the Randolphs for the Convention. To the right of the road, as you face the house, is the Doctor's "workshop"—about four acres of iris set in long rows.

The busses huffed and puffed up the long circling road until the final stop some hundred feet below the house at the foot of the driveway. It was a glorious sight when, after walking up these last few feet, to see those acres of iris, in the very peak of bloom, stretching as far as the eye could see.

It was cold in this garden even though we arrived shortly before eleven o'clock. But there must have been some good warm weather previously, because there was a most satisfactory amount of bloom. Immediately upon entering the garden we came upon the guest beds, and as we approached we heard, "Well! It made it." Here was Lloyd Zurbrigg, pleased that his Princess Anne was in bloom. Princess Anne is a bright,

light yellow, with a white area in the falls, and bordered with darker and brighter yellow than the yellow of the standards.

Patrician (H. F. Hall) won the Franklin Cook Memorial Cup. This heavy white with smooth yellow hafts and yellow beard was lovely everywhere.

Mr. Paul Cook's Progenitor children soon had a group around them. There was Emma Cook, a large clump of seedling 21655, Whole Cloth, and Kiss Me Kate. Of these I liked best the form of Whole Cloth, with its white standards and flaring light blue falls. Kiss Me Kate is a small beautifully proportioned Border iris, creamy white, with slight light blue border on the falls. This new line with the "different" blue is greatly coveted.

Luscious (Carney) is another charming Border iris of light apricot with light tangerine beard, making a lovely front of the Border clump.

Sweetheart's Folly (Cassebeer) is a very large, clean cream with smooth yellow shoulders, yellow beard, and slightly darker tinge of yellow around the ruffled standards and falls. I couldn't see anything "folly" about it and was told there was a little story behind the name—seems that when Mrs. Cassebeer made this cross she was told "Nothing will come from that," but it did.

The following varieties were especially noted:

Swan Ballet (Muhlestein), wide, ruffled, flaring heavy white, with white-tipped beard. Fine stalk and balance.

Cliffs of Dover (Fay), this splendid upstanding white is good everywhere.

Olympic Torch (Schreiner), tall, ruffled copper self with very smooth texture. Brilliant.

Arabi Pasha (Anley), deep blue with blue-tipped beard. The flaring falls have a pert little dip.

Breaking Wave (K. Smith), large, well-formed white with slightly rolling ruffles.

Inverness (Watkins), big white with white beard, in a handsome clump.

Precious Days (K. Smith), tall tailored soft blue with good stalk and balance.

Ken (Rundlett), this slightly ruffled medium blue with blue-tipped beard is well-branched and very floriferous. There was a large clump with many, many stalks, but only two were open.

Exotic Blue (Randolph), it is hard to describe this slatey blue with olive overlay and huge brown beard tipped olive. This is truly "different," and no one will say about this, "Father had that twenty years ago."

Crispette (Schreiner), wide orchid-pink, crisp and clean. A useful color.

Tarn Hows (Randall), attractive tall rosy-brown blend.

Girl Friday (Douglas), very clean light pink self with a reddish beard, and no yellow on the hafts.

Valimar (Hamblen), smooth, heavy-substanced apricot-pink, vivid tangerine-red beard, and excellent stalk.

Billet Doux (Douglas), small, nicely proportioned light blue. Still one of the loveliest blue Border iris.

Cricket (Knowlton), Border variegata with brassy yellow standards and red-brown falls.

Several embryo-cultured seedlings from (Parisiana x *Gatesii*). Looking very Onco and attracting much attention.

Randolph 55-48-1 ((Deep Black) X (Sable sib x Storm King)). Handsome velvety black with matching beard and no marks.

Rows of bloomed-out species, dwarfs, and medians. There was still one small late one (Randolph 56-13-2) from a white seedling x *olbiensis* with white standards and light blue falls.

At luncheon, which was served at Willard Straight Hall on the Cornell Campus, we were asked if we wished to go back to the garden, and the consensus was "definitely." After choice of a lecture or demonstration of chromosome counting and embryo culture being done by Mrs. Randolph, we were taken back. But even so, since there was the long ride back to Syracuse, there still remained many, many things yet to be seen.

FRED W. CASSEBEER

VERONICA M. QUIST, Spring Valley, N.Y.

Breeding beautiful, hardy, free-flowering irises is but one of the many fascinating pursuits in which Fred Cassebeer of West Nyack, New York, is engaged. He is well known, not only as an iris grower, but for his excellent flower photographs, his lectures on horticulture, and his many contributions to the American Iris Society.

Fred was born in New York City and has spent all of his life in the state. It was while he attended Dartmouth College that he first became interested in photography. He has taken innumerable fine photographs in black and white. Then with the advent of color slides came the opportunity for him to catch the many lovely colors of the flowers as they appeared in the garden.

The American Iris Society Bulletins have numerous samples of his art. He has also made photographs for magazines such as the *Ladies' Home Journal*, the *Farm Journal*, the *Flower Grower*, and *Popular Gardening*; as well as for garden calendars, catalogs, and so on. His pictures have been in demand by garden clubs and members of various garden groups. As photographer for the Federated Garden Clubs, he has taken slides of horticultural exhibits and flower arrangements at shows and Garden Club meetings, at shows for the Horticultural Society of New York, and at the International Flower Shows.

Fred's start in the horticultural line might be traced to around 1926 when he saw a display of Scheepers' tulips which so impressed him with their beauty that he bought a collection of bulbs. This interest soon grew to include daffodils, gladiolus, and iris. He worked with gladiolus for several years, producing many fine seedlings, and introduced Pink Paragon, Orangetown, Hi Jinks, Furbelow, Sweet Talk, and the salmon-scarlet Helen Hayes.

About 1928 Fred began growing iris and became a member of the American Iris Society four years later. Although he had many varieties of Tall Bearded irises and several Siberians, he did not start actively hybridizing until around 1940, and when interest in irises increased, his breeding of gladiolus was laid aside.

Just about this time Fred took over the work of editing the AIS Bulletin. This period included the war years when he held an important position on a rationing board in New York City. With this, and his own business to care for, he still managed to find the time and energy needed for the work required as editor. In spite of war shortages and restrictions he was able to produce excellent issues. He had an able assistant at this time, Miss Marcia Cowan, who later became Mrs. Cassebeer.

Fred Cassebeer was the original sponsor of Region 19 (which at that time embraced the New York Metropolitan area, Staten Island, and New Jersey), and was temporary Regional Vice-President in 1948 and part of 1949. He was a Director of the AIS, and in 1952 he received the Distinguished Service Medal of the Society.

While serving as a Director, Fred was responsible for the designing of the two medals which are given for *Achievement in Hybridizing* and *Distinguished Service to the Society*.

Fred is a member of the Federated Garden Clubs and the Horticultural Society of New York of which he is both a member of its board and of its Exhibition Committee. He held the position of treasurer in the latter Society from 1948 to 1956.

Innumerable lectures have been given by Fred at various clubs and society meetings. Many articles on irises have been written by him for garden magazines and other publications. He wrote the article "Flower Photography" for the book, *Iris, the Hardy Perennial*. In the *Handbook for Judges* of the AIS he contributed the section on Siberian irises, in which the many features of these irises and the standards for judging them were discussed. He favored giving the majority of points for color, the "dramatic appeal" of these dainty flowers, and stressed the importance of intensity and clarity.

Those who visited the garden in Blauvelt where Fred lived until 1950 were fascinated by the wonderful display of Tall Bearded irises, Siberians, peonies, and other perennials. Only those seedlings which were good growers and met his standards of perfection in flowers and branching, were kept. Several seedlings were introduced, the first one being Orange Glow in 1942.

When the Cassebeer family moved to Strawtown Road in West Nyack in 1950, their collection of irises, peonies, and daffodils went along. The seedlings and Siberians were set out in a large field, but these had to be moved a couple of years later when the owner wanted the use of the land. Named varieties were placed in beds near the house where they could be seen to better advantage, while the seedlings were moved to a new section toward the south.

A few years ago, the building of a reservoir created a lake at the foot of the slope back of the Cassebeer home. Many irises had to be transplanted. They were planted in oblong and round beds where they stand out in all their beauty against the background of the lake. The new varieties of other hybridizers, as well as Fred's own introductions, are displayed here.

The Cassebeer iris include: Adios, Blue Whisper, Golden Spangle, Luggage Tan, Mayerling, Orange Glow, Pink Lemonade, Pink Panoply, Plushbottom, Royal Garnet, Smoky Topaz, Splendored Thing, Strawtown, Sweetheart's Folly, Tappan, and White Sprite. Bermuda Sea, a marine blue with a light spot at the beard; the new yellow-brown Mustard Pot; and Primrose Bonnet, a border iris, are being introduced this year. The lovely white Billowy Cloud, the light medium blue self Placidity, and the plicata Border iris, Sputnik, have been registered this year.

Fred's Siberian irises range through an assortment of colors. A beautiful white with wide petals, larger than any white Siberian to date, has been registered this year under the descriptive name of White Swirl.

Because Fred is a pharmacist by profession, he necessarily spends most of his time in his store on Madison Avenue in Manhattan, but he is happiest when he is out in the garden, taking pictures, looking over his slides, or occupied with something else related to his varied interests. In his quiet, gentle, unassuming way, Fred Cassebeer has done a great deal for the American Iris Society. He has contributed immeasurably toward the furthering of iris interest and knowledge, and in spurring on so many of us in the unending pursuit of iris "perfection."

The Cassebeer garden is just a few minutes drive from Exit 12 on the New York Thruway. Mr. and Mrs. Cassebeer extend to everyone a cordial invitation to visit their garden at any time.

In Memoriam

The AIS membership regrets the death of Mrs. Arthur H. (Diana) Schuman, on January 12, 1958 at St. Petersburg, Florida.

Mr. and Mrs. Schuman had formerly lived in Detroit where they had been active in the Iris Society of that city.

DAVID F. HALL, AUTOBIOGRAPHY

For the story of my interest and modest achievement in gardening and plant breeding let's start at the beginning when I was born Aug. 15, 1875, in the town of Blenheim, Ont., Canada.

When I was five years of age my father was killed when thrown from a wagon by a runaway team of horses.

I spent some years of my boyhood with my grandfather and grandmother Hamil on their farm located a few miles from Blenheim. I was fascinated with the livestock and other growing things on the farm, and in helping my grandmother in the vegetable and flower garden I learned some of the fundamentals of successful gardening, but, I confess, I was much more interested in growing watermelons than carrots or tomatoes. When nineteen years of age, I was working in the Canadian forests a hundred and fifty miles north of Toronto, logging out timber for telephone and telegraph poles.

In 1896 I came to the United States and secured a job with the American Telephone and Telegraph Co., digging holes for telephone poles on the first long distance telephone line running south from Chicago. I continued in the service of this Company for forty-four years. I was born a few months before Alexander Graham Bell applied for a patent for the telephone, and I sort of grew up with the telephone.

I worked in various departments of the company and after deciding I wanted to be a lawyer, I worked in the right of way department, studied law at night, and in 1907 was licensed to practice law in Illinois. I was appointed Division Attorney for the Long Lines Department of the American Telephone and Telegraph Co., in 1908 and continued to serve in that capacity until I reached the age of sixty-five in 1940 when I retired.

In 1910 I went back to my home town, Blenheim, and married Mary Rhea von Gunten. In 1913 we purchased a house in Wilmette, a suburb of Chicago. Our lot was covered with large elm, oak, and hickory trees. We went into a huddle and decided we would rather grow flowers and vegetables than saw logs. We also concluded not to fight nature, as most flowers don't do well in shade and in competition with tree roots for food and moisture, so we cut down most of the trees and planted our first garden. We soon decided our favorite flower was the iris and in the course of two or three years collected about eighty varieties.

About 1918 we visited the lovely iris gardens of Mr. and Mrs. Douglas Pattison, in Freeport, Ill. We were astonished and thrilled at the beautiful new varieties on display. We understood several thousand dollars had been spent the year before for varieties imported from France and England. The next day we took a critical look at our iris, which looked pretty poor in comparison, and we decided to grow some of these newer and better ones.

About seventy out of our eighty named varieties were discarded and we added some of the lovely newcomers we had seen.

We joined the American Iris Society during the administration of Mr. John C. Wister, the first president, and the many interesting and delightful friends we have made in the AIS have given us inspiration and much pleasure in the pursuit of our common hobby.

A year or two later we visited the Sass Brothers' Gardens, near Omaha, Nebraska. They were among the leading hybridizers of iris in this country at that time. A visit to their gardens was thrilling. We were astonished at what they were doing to improve the beauty of iris, and I learned what I could about hybridizing from these two fine, generous and lovable men and concluded I would try my hand at it.

Upon returning home I made some crosses and harvested quite a few seeds. A couple of years later when they bloomed I was very disappointed and discouraged and could hardly believe that not one of them was as beautiful as its parents.

At this time we owned a half interest in a horse and cattle ranch near Calgary, Alberta, spent our vacations there, and realized that the very finest stallions and bulls used for breeding rarely produced offspring in the first generation that were outstanding; but when bred back to their offspring, the second generation in most cases showed marked improvement.

Cattle Breeding a Guide

I studied the breeding of some of the champions in the horse and cattle world and was impressed with the frequency of inbreeding or line-breeding among these champions.

Some study of the subject led me to the conclusion that the laws of heredity that apply to the breeding of animals also apply, in a large measure, to the breeding of plants.

So I decided to continue my work with iris and apply the principles that had been successful in producing superior live stock.

I noticed that there were some so-called pink iris, but they all carried some orchid or lavender tones or were blends. I thought a pure pink iris would be popular and to produce one, a worthy challenge. So I decided to try for it. I selected for that purpose four of the nearest pink iris in our garden and line-bred them, selecting for further breeding the best of each generation. One of these four was an iris named Aphrodite; in it the lavender color appeared to be quite dominant, and nearly all of the seedlings also lacked substance and size. Therefore, after working to breed the lavender and orchid out of this family for eight years, I became discouraged and had every one of this gang trucked away.

I decided to make another try to prove my theory of line-breeding and selected for this purpose iris of larger size, with better substance and stem, even though they were not as pink as the ones I had been working with.

The five selected for this second attempt to produce a pure pink were—

Rameses (Sass), a pink and yellow blend and an American Dykes award winner; Dauntless (Connell), possibly the best red of its day, also an American Dykes award winner; W. R. Dykes (Dykes), one of the first large yellows, an English Dykes award winner; Morocco Rose (Loomis), a pinkish blend; Dolly Madison (Williamson), a pink and yellow blend.

Nine years later in 1942, four pink iris with tangerine beards appeared among my seedlings. Imagine the thrill and satisfaction in achieving this objective after seventeen years of work and growing about twenty thousand seedlings!

Two of these four pinks were named and introduced, Overture and a small pink named Dream Girl. Pink seedling No. 42-10 has proven to be the best parent of the four, but it was never named. This was a mistake for it was also in my opinion the best flower. I was influenced in naming Overture instead of 42-10 by well-meaning friends who preferred it.

The year the pinks first appeared in my garden I discovered two commercial artists admiring them. I asked these gentlemen to describe the color in language the general public would understand. Half an hour later they reported that they agreed that "Flamingo Pink" was the best name they could offer, and so this strain became known as Hall's Flamingo Pinks.

Line-breeding Results in Flamingo Strain

I have continued to the present time to line-breed the offspring of these first four pink seedlings with the addition of a large orchid-pink sister seedling that had extra good substance and a fine well-branched stem. From this strain or family of iris over the past sixteen years has come quite a wide range of attractive colors: baby ribbon to deep-toned pinks, brilliant yellows, whites with tangerine beards, golden apricots, rose tones, and a very attractive line with yellow or pinkish yellow standards with cream falls widely edged with the color of the standards, on the order of Palomino and Golden Garland. Many of this Flamingo strain have tangerine beards, much ruffling, and lacy edges. A very large percentage of the seedlings of this whole wide family have good form, substance, and strong well-branched stems.

Until a few years ago I was anxious for fear this continued line-breeding would result in a loss of vigor, but, on the contrary, today's seedlings are more vigorous and are vastly superior to the early ones in every respect. This is probably due to my practice in selecting for vigor as well as other desirable characteristics when making crosses, and I believe line-breeding of this strain can be carried on indefinitely with good results. In selecting parents, consideration must be given not only to color but to all other characteristics that are necessary to develop a flower and plant of commercial value. I now have several sub-strains or families of these different colors or markings that I am developing.

I have made a few outcrosses but the results have been disappointing. This doesn't prove anything, for I may have exercised poor judgment in selecting varieties for the outcrosses, and furthermore, I haven't made enough outcrosses upon which to base a conclusion. But while I may continue to make an occasional outcross, I will stay pretty close to line breeding.

Through the years I have grown on an average about fifteen hundred iris seedlings annually. Each year I believe I can see a small improvement in the overall quality. A large number of the seedlings of today would have been considered outstanding a few years ago. This is also true of the seedlings of most of present day hybridizers.

To date (1957) inclusive, eighty-one of my iris originations have been introduced and fifty-five of these have received one or more awards from the American Iris Society. Forty-four of my hemerocallis originations have been introduced. I have received the following personal awards.

- 1945 Achievement Medal of the American Iris Society for Hybridizing iris
- 1948 Bronze Medal of the Men's Garden Club of the Chicago Region for distinguished service in behalf of horticulture
- 1949 Foster Memorial Plaque (England) for outstanding achievement in breeding iris
- 1951 Wm. R. Dykes Medal for the iris, Cherie
- 1955 Award of Merit of the Chicago Horticulture Society for outstanding service to horticulture
- 1955 Charles L. Hutchinson medal presented by the Chicago Horticulture Society for Contribution to Horticulture
- 1956 Bertrand Farr Award of the American Hemerocallis Society for outstanding work in hybridizing hemerocallis

In 1948 my faithful colored helper Bert, who had been with me for fifteen years passed away and I was unable to replace him. As the propagation and distribution of my iris and hemerocallis originations took too much of my time and energy, I made an agreement with Cooley's Gardens of Silverton, Oregon, to propagate and distribute my iris originations, and in 1953 a similar arrangement was made with Gilbert H. Wild & Son of Sarcoxie, Missouri, to handle my hemerocallis.

I would like to mention the names of, and do honor to, the many gracious and lovable old time hybridizers it has been my privilege to know. They meant so much to me, but space will not permit. Many of them are no longer with us, but their flowers and memories will remain.

I expect to continue hybridizing iris and hemerocallis as long as I am able to do so and believe improvements even beyond our imagination will continue to be made in these flowers for hundreds of years.

DAVID HALL

Editor's Note: Mr. Hall's name will not be soon forgotten, for he has contributed to the beauty and charm of gardens on every continent.

ELIZABETH NOBLE NESMITH

HAROLD W. KNOWLTON, Mass.

"If we would keep the spirit of youth, it is essential that we have an absorbing interest in life, and I know of nothing more healthful or more entertaining than the culture of flowers and the perfecting of a garden." So wrote Mrs. Thomas Nesmith of Lowell, Massachusetts, in the foreword to her catalogue for 1932. Through the years Mrs. Nesmith has maintained that absorbing interest, and today she is more closely identified with the development of iris and daylilies in New England than any other person. It is a source of great pleasure to me that during this period I have been privileged to know her and to visit her garden. The annual visit of our local iris group to Fairmount Gardens in early June is the high point of our garden season, inspecting the newer varieties of her own originations and those of others, and enjoying the pleasant luncheon hour under the apple trees.



Mrs. Nesmith has been interested in irises since 1912, her interest fostered by her close friendship with the late Miss Grace Sturtevant of Wellesley Hills. She is a charter member of the American Iris Society, which was organized in 1920 and has since maintained an active interest in it. In 1928 she was appointed the first Regional Vice-President for New England and served in that capacity for six years. She has a wide acquaintance with iris growers throughout the country and, indeed, throughout the world. Her wise counsel has been sought many times by the officers of the society. During the early days of the society many display gardens were established, particularly in the New England region, and it is recorded in the Bulletin that: "It is through the efforts of Mrs. Nesmith that it has been possible to establish the majority of these New England gardens, for she has enlisted the interest of sponsors, chosen locations, and secured planting stock, supplying a quantity from her own garden." Although later the society felt obliged to withdraw from the sponsorship of these gardens, her contributions of plants to the Presby, Stockbridge, Plainfield, and other display gardens has continued to the present time. Recently there is a renewed interest in test and exhibition gardens. As

Regional Vice-President she began the custom of monthly meetings of the region, a custom which has persisted to the present time and done much to maintain the interest of our small, but compact, local group.

Mrs. Nesmith's first registrations were in 1927. In 1930 she issued her first catalogue, adopting the name of Fairmount Iris Gardens. In 1938 her catalogue was enlarged to its present size, and because of her growing interest in hemerocallis, Oriental poppies, and other perennials the name of this garden was changed to "Fairmount Gardens." At that time she grew Japanese irises extensively, and I recall wandering with her through the long rows of flowers. In 1932 and 1933 her catalogue included a long list of this class, of which about twenty were her own introductions. She also featured the Louisiana beardless hybrids, particularly those of Mr. T. A. Washington of Nashville, Tennessee. She has introduced over sixty Tall Bearded irises. Earlier ones included Nusku and Tommy Tucker. In 1933 and 1934 she introduced Cortez (a variegata), Gold Foam, and Maluska. From two of her seedlings, a variegata seedling involving Cortez crossed with a white seedling, came Melitza, which was introduced in 1940. Melitza was famous in the development of the pinks with tangerine beard. It won the Award of Merit and was much used in breeding. In 1936 came Cathedral Dome and White Goddess, both of them for many years in the forefront of white irises. Others of note were: Nobility, Sundance, Azalea, Sukey of Salem, and Exquisite. Bronze Brocade, introduced in 1948, is still a fine iris, with tall, well-branched flowers coming late in the season. Another fine dark iris is Desert Dusk. In blue-blacks she has given us Black Satin, while Burnished Black is a bright deep blue. Summer Song, a lovely golden orange-buff, has great appeal with its self beard, domed standard, and smooth, well-rounded falls. Magic Sails is a very large flower of pale blue. It is one of her best and ranks high in a field that has much competition. The newer Yuletide has a deeper color. Recently she has brought out: White Cockade, Dawn Pink, Carissima, Sub-deb, Iridescence, Golden Dragon, and that lovely white named Crystal White.

Pioneered in Spuria Promotion

Closely following the bearded irises in Mrs. Nesmith's garden are the Spurias. In the nineteen-thirties she introduced a number of the productions of Mr. T. A. Washington, notably Bathsheba, a lovely white and yellow flower. This group is not too well known in the northern part of the country, but interest in it is growing. She has been breeding Spurias for some years and recently has introduced Dresden Blue, a lovely ruffled flower, and Royal Toga with violet standards and falls white veined violet.

In her garden the Louisiana irises have always had a prominent place, following the Tall Bearded irises in mid-June. Recent introductions by Mrs. Nesmith include Silk and Satin, and Vista Violet.

A shady corner of the garden contains a comprehensive selection of

hostas. These are very effective at the base of shrubbery. Oriental poppies have always interested Mrs. Nesmith. Pre-eminent among them is Coral Cup, a late pink, which has strong stalks so that the plant does not flatten down as so many poppies do.

In the development of hemerocallis, Mrs. Nesmith is at least as prominent as in that of irises. Starting in 1933, with Crown of Gold she has year by year produced many varieties which have won acclaim. Potentate, a rich pansy purple, received the Stout Award in 1952, the highest award of the American Hemerocallis Society. Prominent among her many originations are: Devon Cream, Carved Ivory, Pink Prelude, Su-lin, Windsor Tan, Canyon Purple, Pink Charm, Royal Ruby, Bold Courtier, and Glowing Gold. Her daylilies are mostly of the deciduous type and have strong scapes with good branching, large flowers, and clear colors. She is particularly interested in the new color breaks in lavender, pink, melon, and raspberry. Precious Treasure is one of the loveliest of the melon type. Evening bloomers in pale yellow include the justly famous Vesper, Canari, and Mystic Moon. Starting with the pale ivory sculptured blooms of Carved Ivory, we have Bonny Ruffles, Thistledown, Dawning Light, and Devon Cream in deepening tones. Her latest catalogue, the twenty-seventh edition, lists such beauties as Fortune's Favor, Silken Sheen, and True Delight. Mrs. Nesmith is a charter member of the American Hemerocallis Society. She has served as Regional Supervisor of the region comprising New England and New York, and is at present a director of that society.

Introduced Three Dykes Medal Winners

Mrs. Nesmith has been introducer for several well-known hybridizers whose iris have won high honors. She has the distinction of having introduced three varieties which have won the Dykes Medal, the highest honor of the American Iris Society: namely, Mary Geddes, 1935; Chivalry, 1947; and Helen McGregor, 1949.

Many honors have been won by her in the horticultural field, among which are the following: Medal for Achievements in Hybridizing by the American Iris Society, the Bertrand Farr Award presented by the American Hemerocallis Society "for outstanding work in the hybridizing and propagation of finer daylilies for the enjoyment of all flower lovers," the Stout Medal of the American Hemerocallis Society, the Garden Club Federation of Massachusetts' Certificate of Merit "for notable horticultural work," the Gold Medal Certificate of Merit from the New York World's Fair for exhibit of hemerocallis, and several silver and gold medals from the Massachusetts Horticultural Society for exhibitions of irises.

Can This Be Aphylla?

ROBERT SCHREINER, Ore.

The advent of the really dark colored iris, with a nuance in color intensity that is shared by few other flowers, brings an interesting development of a special type of pigmentation of a hue so dark it literally approaches "black." It raises the interesting question: where did the dark iris, such as the famous Dykes Medalist, Sable Night, or our own seedling, Storm Warning, derive such intense pigmentation? This very deep pigmentation could conceivably have had its origin in the species *I. aphylla*.

History

One impression that struck me forcibly, in pondering retrospectively, is the common source of the outstanding dark iris of today. Paul Cook's Sable Night is a classic example. Its parentage is (Indiana Night x Modoc) X Sable. Now, in turn, we must go back to the earlier Cook variety, Sable, which is from this complex ancestry: (((Innocenza x Blue Boy) X (Cinnabar)) X (Seminole x Cinnabar))). It is perhaps significant that the important cross of Innocenza x Blue Boy is the key breakthrough behind the entire series of the Cook dark iris. The influence and inheritance of Blue Boy in Sable is most pronounced. The intense line breeding Paul Cook employed in the darks (Indiana Night is Valor x Sable) and the use of this breakthrough, as referred to in the parentage of Sable, gave a series of plants of fine garden qualities and which are significant breeders as well.

Later a continuation and amalgamation with Black Forest (of which more just a bit later) gave Deep Black: ((Black Forest x (Captain Wells x Indiana Night)) X ((Modoc x Black Wings) x Indiana Night)), and Dark Boatman was a similarly derived seedling. Dark Boatman is from Black Forest crossed with a seedling involving Modoc, Sable, and Black Wings.

The above citations are spectacular advancements. Let us pause, however, and give a backward glance to a famous dark iris of another year, which, likewise, is often found in the family tree of our modern dark iris. It is Souvenir de Mme. Gaudichau. While we do not have an authentic record of its ancestry, it is my suggestion that this is another seedling derived in part of aphylla ancestry—deriving the characteristic coloring, the bluish beard, and even the knobby way the increase shows on the rhizomes as offsets. This is a characteristic more noticeable in *anhulla* than in some of the ordinary garden iris. Physically, Souvenir de Mme. Gaudichau has a definite aphylla look and while we can not prove with lineage records that it is a child of aphylla ancestry, I raise the question as to the possibility that it could be. Certainly a child or a grandchild would bear some of the family resemblances of *aphylla*,

and Souv. de Mme. Gaudichau seems to display some of these characteristics. Perhaps an examination of the chromosomes by Dr. Mitra could establish consanguinity, just as we match blood types in humans.

And, too, note the presence of Modoc in Paul Cook's seedlings. Modoc's breeding is Alcazar x Souv. de Mme. Gaudichau, which certainly bespeaks intensive inbreeding or line breeding of the Cook line to achieve a major refinement and improvement of *I. aphylla* characteristics.

Our own Black Forest, which is preferred by some gardeners as a dark iris of a certain charm and color note not exactly duplicated in its more illustrious children, has proven to be a fine garden plant and a parent of singular importance. Its ancestry is most interesting. And here again we come across that tenuous thread of *aphylla* ancestry.

Important Early Development

Years ago, Mr. Shuber of Clinton, Iowa raised two rather unusual blue iris, Narain and Dymia. Their parentage is: in the case of Narain, (Blue Boy x Crusader) and in the case of Dymia, (Harmony x Crusader). With the revival of interest in the Intermediate iris, diligent search has located some plants of Blue Boy still extant. This is clearly an *aphylla* derivative from appearances, yet I can not definitely say that it is because we do not have the records available to substantiate this claim. Again, I feel quite confident that Dr. Mitra with the techniques of modern plant science will be able to make an identification to confirm the ancestry of Blue Boy and Harmony, showing their linkage to the species *aphylla*. The dark, deep intense coloring or pigmentation and that blue beard are the marks of this species. As for Dymia, it is interesting to note that this has given two prominent branches of modern garden iris. Gulf Stream (Dymia x Narain) is, in essence, a concentration of inbreeding of an iris that had *aphylla* ancestry on both sides of the cross. Gulf Stream, in turn, was crossed with Black Valor; and this seedling, in turn, was crossed with Black Forest to give Orville Fay Black Hills. Mr. Fay continued the use of Black Hills with other of his black seedlings to produce his two newest darks, Total Eclipse and Black Swan. The recurring use of Black Forest was exemplified, above, in both the Cook and Fay darks. It also finds confirmation of its potency in Gertrude Songer's Black Taffeta (Black Forest X (Storm King x Sable)). In England, as well, the use of Black Forest has given some fine darks.

Let us look, therefore, at Black Forest's ancestry. It is Dymia x Ethiop Queen. Ethiop Queen is (Grace Sturtevant x Indian Chief) X The Black Douglas. Black Forest, interestingly shows several distinct *aphylla* characteristics. It is very floriferous and semi-deciduous. The hybridizer who is interested in getting pollen for crossing will find that Black Forest does not produce pollen liberally at all times. My brother Bernard noted that the pollen (when produced) generally came right after a cool period, even a cool morning after a slight precipitation within the previous twelve hours. It was more reluctant to produce pollen during

very hot or arid periods of weather, and, interestingly, this iris and many of its derivatives are less happy growing in the warmest sections of southern California and similar climates. This is a tendency which is inherited in varying degrees by its derivatives, although it is not a uniform condition to all of them. It applies to this group in a general way, which explains the lack of good bloom on dark iris at the Los Angeles and Memphis national iris meetings. Here the whites and blues certainly were in their glory and held princely sway.

Iris aphylla, a native to the colder parts of Europe and the plains of Russia, is distinctly a northern iris as far as climatic preference is concerned. The character of the plant is deciduous, lacking lush foliage to be injured by severe winter weather. Its lack of performance in California may well explain why it was not employed in the extensive use of the tetraploid Tall Bearded iris, though considerable amount of the combination of the hardier iris with Asiatic tetraploids was carried out by the late William Mohr and Professor Sydney B. Mitchell and those who followed in their footsteps. As you may note, the aphylla hybrids we have were all originated in the more northerly climates.

Some Schreiner Darks

A survey of the dark iris might be interesting. We have been interested in developing finer dark iris and over the past ten years have grown several thousands of seedlings of this general color and its derivatives, yearly. In fact, in working so intensely with this family, recognition of "the line" could become quite reasonable, and it was with this experience that we could go back and survey some of the earlier iris and see in them these aphylla characteristics. So much so, that Blue Boy, Harmony, and Souv. de Mme. Gaudichau became quite readily recognizable. Storm Warning (Down East x Black Forest) has proved to be the most widely adaptable of the darks carrying fine color, better than average size, and a rich luster. Older Black Diamond is ((Black Forest X (The Black Douglas x Black Beauty)) and Black Castle is (sister to Black Forest x Down East), noted because it does not have a blue beard but a more conventional beard. It lacks the height of the preceding variety. Tabu (Black Forest x Storm King) has perhaps the finest depth and glossy texture in its coloring of any dark iris. It, however, seems to prefer regions that have very definite winters, and it is not happy in the extremely warm sections of the country.

Mr. Geddes Douglas has likewise made use of the blood stemming from *Iris aphylla* in his dark iris; as, for example, Pagan Royal*, through his use of Blue Boy. And while I do not have intimate knowledge of his efforts along this line, I understand that he has used this type of ancestry in his work among these color lines. There are other breeders too, who have made use of this type of inheritance. It is not the attempt of this

* Pagan Royal: Gulf Stream x Nesmith 43-20a (The Bishop x The Black Douglas). Calypso: Barbara Adams x Gulf Stream. Sweet Regrets: Northwestern x Calypso.

article to cover the breeding work of all the hybridizers who have made similar efforts along these particular lines; however, we do feel that while we make mention of Colonel Nicholls and the Sass' work in this field, there are many others as well. A study of the family trees will reveal this.

Within the last two years a new impetus has been given to the interest in, and the use of, *aphylla*. As will soon become apparent from experiments, a number of aphylla characteristics are dominant to other Tall Bearded characters. Features that are especially noticeable and carried along into its hybrids are the very heavy, generally green or green-tinted purple spath that cups the ovary. The branching habit of *Iris aphylla*, as well as the tendency towards the loss of foliage in late summer, is noticeable in its hybrids. The species itself in some geographical forms loses all its foliage by late August.

I mentioned before the knobby type of increase that shows up in *Iris aphylla* compared to the more spear-like elongation of the increase of conventional bearded iris. The species *aphylla* resents, to a degree, being moved during its dormant period. In our experience it is better to move it later in fall than most bearded iris. Interesting, too, is the fact that many aphylla descendants tend to form very few new roots on their rhizomes immediately after flowering. The rhizome is inclined to be as bald as some of the new growth on the *Oncocyclus* iris. This is noticeable even on rhizomes of Sable that are dug within three to four weeks after its flowering period. Contrast this with the much heavier root system in most conventional bearded iris.

In color, not only is the deep violet derived from *aphylla* famous, but *aphylla* will also contribute a sort of heliotrope shade from some of the forms of this species emanating from Hungary. Years ago we were interested to note that the use of the Tall Bearded dominant white when mated with *aphylla* did not give a progeny of complete dominance; in fact, the colors seemed to be diluted to a considerable degree though not completely suppressed. The hybrids in some ways recalled the Tall Bearded variety, White Wedgewood, which seems to have just missed being a white with a blue beard due to this dilution of pigmentation. Perhaps with a greater selection of forms and the increased number of clones being raised, there will appear that Tall Bearded white with deep aphylla-blue beard.

The question at the present time with *Iris aphylla* being an autotetraploid is whether in hybrids of it originating from crosses with the Tall Bearded garden hybrids, we may have a selective pairing of the chromosomes of the aphylla chromosomes. If so, then our chances to integrate recessive characters out of this species might be rather limited to those rare chances of fundamental variation in cell reductions to give us some kind of new alignment. With so many interested breeders probing the facets that this species has to offer, we have the exciting possibility of new alignments. Too, think of what this hardy blood can offer to

those raisers of iris in the plains areas with dry open winters. Conceivably it might well allow the extension of iris growing into the more northern reaches of the Canadian prairie provinces where, at the present, many of the garden iris do not succeed due to their more evergreen constitution.

The future? Yes, there will be finer dark iris—improvements in size, more deep blue blacks with less red are being tested; and selections for crossing with fine material that does well all over the country, will, in time, yield top notch dark iris. And that dark blue beard will be transposed along with the deep self color of *aphylla* into a garden family of plants that will grow in the south, so gardens there, too, can enjoy these rich beauties which their more fortunate northern neighbors have enjoyed for so many years.

It is interesting to think that here we have in reverse the problem that iris hybridizers faced when the first tender white iris of Asian ancestry appeared. They were “tender” for the north. Yet twenty years later these iris are now enjoyed in luxuriant abundance, fine white and blue iris of hardy constitution.

This article is not a “scientific” paper and I have digressed a bit from my original thought of discussing the regional performances of certain color. I am afraid that Dr. Sturtevant, of genetics fame, would throw up his hands in horror at anyone taking time to write about this, but I do think YES, THIS COULD BE APHYLLA, refined and glorified!

CORRECTIONS, 1957 REGISTRAR'S REPORT

*Emberglow—released by Mr. Hall because name is in use as published.

**Emberglow*—Hall—D.; R., 1957; Sdlg. #54-35. Released because name is catalogued to another iris, though not yet registered. Renamed *Spring Charm*.

**Forever Spring*—Gaulter—L.; R., 1957; Sdlg. #56-16. Registered in error. Name not available. Will be registered as *Mademoiselle*.

**Gold Dust*—Hall—D.; R., 1957; Released as name was not available; Registered in error.

LISTOWEL—correction of parentage: (Snoqualmie x Prairie Sunset) X Sound Money.

*Pennant—Beeherer; R., 1957; name incomplete: PENNANT WINNER.

PENNANT WINNER (Beeherer. TB; 36"; M. Y5. Cascade Splendor X Sdlg. 7-28-57. ROYAL RUBY (Goodman); correction of Parentage: (Red Hussar x Savage), not Red Husser.

*Spring Charm—Hall—D.; Sdlg. 54-45, changed to SPRING FESTIVAL.

SPRING CHARM (Hall—D.); #54-35 TB 34" M. R1L, Rose-pink self. Rose-pink Sdlg. X Rose-pink Sdlg. 12-31-57. First registered as *Emberglow*.

*Spring Festival—Hall—D. Sdlg. 54-25. Name changed to White Palomino, which will be registered in 1958.

SPRING FESTIVAL (Hall—D.); #54-45. TB 37" M. R3L, S., Light Pink; F., Medium pink. Sdlg. 51-28 X May Hall. 12-31-57.

Landscaping with Iris *

MARTIN McMILLAN, Houston, Texas

Were it not for the color factor in nature there would probably be no occasion for this discussion. Color affects different people in different ways. Some colors to some people may be calm and soothing, while to others they may be irritating and cause restlessness. Scientific analysis has determined that green is the most soothing color while red is the most likely to be irritating.

Perhaps our thesis would be more understandable if, instead of using the term "landscape" we would substitute the old homespun word "garden."

"Landscape" is an abstract word while "garden" has a close and intimate relationship to our everyday living.

I wonder how many of you have ever considered what a garden really is.

The Garden—An Out-of-Doors Living Room

The *New Garden Encyclopedia* defines a "garden" as the setting in which a home is located; the intimate environment of the dwelling, including the several areas, in front, at the sides, and especially at the rear in which are carried on the everyday outdoor activities of the home and its family.

This area will include, therefore: trees, hedges, shrubs, lawns, vines, flowers; paths, walls, terraces, patios, shelters, and the like. This area constitutes an essential part of the home scene—a part that is not complete without the house, just as the house is not a complete "home" without it.

According to this definition, then, the garden becomes virtually an "outdoor" room, calling for its own appropriate furnishings and accessories, and calling also for just as much thought in its planning and care in maintenance, as any of the rooms within the walls of the residence.

The Plan

By careful planning and planting this "room" can be made both interesting and enjoyable through the entire year. Ingenuity and imagination are important ingredients in the development of a garden design, but they are no substitute for a well-worked-out plan. It cannot be emphasized too strongly that *no attempt should be made to develop a garden without such a plan!*

If the grounds are extensive a contour map should be made on which the location of buildings and principal points of interest should also be imposed in scale.

On smaller properties a scale drawing of the grounds might suffice, contouring being omitted provided proper drainage has been cared for.

In either case the location of the proposed plantings should be noted

* Presented before the Iris Society of Dallas, September 20, 1957.

and roughed in on the sketch. *How To Plant Your Home Ground* by Henry B. Aul contains a number of such sketches.

Visualization

If you cannot visualize the completed garden from the flat scale drawing, try sketching a series of vertical plans or pictorial cross sections of the garden as seen from different angles.

From the appendix of the *New Garden Encyclopedia* is this interesting approach to the problem of visualization:

“Mr. Thomas J. Beard, an instructor at Cornell University, attacks the problem of visualization of the completed garden by placing on the sketch of the ground plan a collection of such objects as small wooden blocks, match boxes, scraps of sponge, pebbles, evergreen clippings, etc., to roughly represent the principal features of the layout. The only requirement is that these objects shall be approximately the right proportion in relation to the size of the plan to be in scale with it. The object is to place, group, and arrange these objects on the plan so as to achieve what is instinctively recognized as a graceful and pleasing layout.”

By determining what and where to plant before actual planting operations start, a great deal of unnecessary expense and labor can be avoided—alterations and regrouping can be reduced to a minimum if not entirely eliminated.

Plant Selection

Plants are growing things, and in selecting any type tree, shrub, or herbaceous material proper recognition should be made of each plant's contribution to the garden scene not only at the time of planting, but also its esthetic value after reaching mature growth. A young tree, for instance, may meet the requirements of the garden at the moment, but over the years it may grow in height, shape, spread, or other characteristics as to make it incongruous in an otherwise well-planned composition. Each plant selected should make a definite contribution to the garden picture, whether of flower or fruit, texture or color of foliage, size or shape; with proportion, balance, accent, rhythm, and compatibility essential considerations.

Do not overcrowd. Growing room left for the future growth of young trees and shrubs can be made interesting by using perennials and annuals in the open spaces.

Maintenance

Often overlooked in planning a garden is the problem of maintenance, for as plants are growing things they require attention to greater or less degree. Maintenance, of course, includes such items as trimming, pruning, edging, watering, fertilizing, and spraying.

With this in mind, it would appear logical that those plants native to our area, or those which have proved themselves in our erratic climate, should constitute the major portion of our planting material. Plants that

require constant petting, pampering, and trimming to look presentable in the garden picture should be avoided.

Maintenance can be further simplified if plants of like cultural requirements are grouped together; for instance, plant acid loving plants together, drought resisting plants together, and so on. The Dallas Park department has found this system of planting requires less water, less labor, and the mortality rate of its plantings has been lowered.

Texture

In a small garden fine-textured shrubs and herbaceous material are the preferred choice because generally we are close to the objects observed, whereas on a large estate coarser-foliaged plants could be properly used in the planting, as generally they would be viewed from a more distant vantage point. The finer-textured plants are a more pleasing foil to the rigid, upright fans of an iris garden.

While we have a wide variety of broadleaf evergreens from which to choose, some of the available deciduous shrubbery material might well be considered; not only for its interesting flowers, fruit, and foliage in season; but because of the shape of trunk and branches, or color and texture of bark, it makes interesting silhouettes against our winter skies.

Flowering plants that bloom before or after iris time should be preferred as there should be no competition between the irises and any flowering flora of the garden. In their season of bloom let the irises dominate the garden design.

Shade

Dappled shade is beneficial to our irises. An open iris planting in Dallas is hardly at its best in the middle of a hot, sunny day; but in early morning, late afternoon, or in overcast weather the flowers are lovely. *Parkinsonia*, commonly known as Jerusalem Thorn, a small shrub to about fifteen feet, has been found to give satisfactory shade in daylily plantings which have a tendency to fade. It should prove equally satisfactory for irises.

We have observed a number of gardens which are contained within a Cypress or Cyclone fence, the plain surfaces of which have been broken by an espalier of trees and shrubs, vines or climbing roses, or a combination of these. In the Leota and Henry Keough garden, the Cyclone fence which parallels the street is embellished with a series of Paul's Scarlet roses in front of which are planted clumps of William Setchell and Golden Majesty irises. In its season of bloom this combination is a gorgeous pageant.

This simple grouping of plants in this most effective manner brings us to the obvious conclusion that success in producing the most beautiful garden under the chosen or enforced limitations of our individual problem depends largely on our skill and ingenuity in combining the shapes, textures and colors at our disposal in a pleasant and orderly fashion.

Edging Material

Many gardens are made more attractive by edging the borders with masonry, paving blocks, and the like.

If, however, vegetative edgings are the choice, then the planting material should consist of hardy little fellows, *Oxalis* or *Thrift*, for examples, to provide the broken, irregular lines which are a foil to the rigid uprightness of iris foliage, and happy companion accessories to other plants in the herbaceous border.

Edging plants often bloom before and extend beyond the iris season, picking up the showier colors of the irises on a lower level and a smaller scale. Dwarf irises are not recommended for edging purposes.

Iris in the Planting Scheme

Those of us who have but a limited number of irises, perhaps would realize the greatest pleasure from them by using them as accent plants in the mixed border, in pockets in the shrub border or foundation planting, or to complement or flank some feature of the garden such as a bench, sundial, or fountain.

The Mixed Border

In the mixed border, as in pockets in shrub borders, repeated groups or clumps of just a few varieties give for a more pleasing effect than a confusion of numerous kinds, fine as each may be. Use dark varieties in front of light-colored walls or fences, light colors in front of evergreens.

The late Sydney Mitchell tells us in his book, *Iris for Every Garden*, that in a mixed border "A popular and practical use of a considerable number of Tall Bearded irises is in interval plantings throughout the hardy herbaceous border.

"If the border is shallow and short, it will hardly be desirable to use more than one series of small clumps, preferably in varieties of medium height; put them in the middle ranks; the size of the clumps and their distance apart depending on the scale of the border.

"Proportion must be kept constantly in mind, for if large clumps are put in a small border they dominate it, and small clumps in a long, deep border look lost.

"In general, the larger clump will look better if lengthened rather than increased in depth. A 3 to 5-plant clump should not have more than two ranks in planting, preferably arranged alternately, while a clump made up of a dozen plants should not be deeper than three ranks. Later in the season, it is easier to mask out iris plantings which have length rather than depth.

"When the herbaceous border is sufficiently deep, say nine to ten feet, there will be plenty of room for two series of clumps throughout the border's length—a shorter clump two to three feet back from the path, a taller one at the five to six foot depth—so arranged that they alternate as viewed from the path, never in front of each other.

"This way of planting does not mass the irises in any one part of the

border, which they would overwhelm in their season, and leave pretty uninteresting if left out of it. It does provide a kind of rhythm throughout the length of the border.

"Irises planted in the herbaceous border should be selected for their color value in clumps, rather than for the form and finish of the individual variety. It follows, then, that standard varieties at hand, in a complete range of colors and often at a mere fraction of the cost of scarce novelties, will answer the purpose of effective planting.

"Sometimes the standard varieties serve even better than the novelties, which still have to survive the test of time and to justify themselves under the casual conditions of the mixed border.

"It is always wise to limit the varieties chosen for border use to those of clear, clean color, in the main *selves*, though in the forward line near the path, an occasional bicolor, softblend, or even plicata may be planted where study shows that these will enhance the color value of adjacent clumps. This, however, should be done with restraint."

Dr. Mitchell concludes with this suggestion: "A simple way to arrange a sequence of clumps through a long border is to follow a scheme starting with pale pinks and whites, passing on through the stronger blues and purples, followed by reds, paler blues and greys, with yellows in the distance."

Wet Feet

Damage of irises in the mixed border which might be caused by excess watering can generally be avoided by surrounding the clumps with strips of lawn edging material or sheet metal. Let these strips extend four to six inches above the surrounding soil. When the inside area of this protective shield is filled with garden soil and the irises then planted, the rhizomes thus growing at a higher level are protected from water damage of normal garden irrigation.

The Iris Border

All that has been said about background and edging material of the mixed border, applies with equal force to the iris border.

In an iris border the taller varieties should be planted farthest from the path with just enough tall and short varieties located away from the back line to avoid the monotony of a straight line arrangement. Generally, light colored varieties belong in the background, as the lighter colors have more carrying power, and complement the darker varieties of the foreground planting. Group the various colors in such manner that each will enhance the other's beauty, and keep apart those colors obviously incompatible.

Compatible Colors

While individual taste quite often influences color grouping, there are a number of considerations which should be understood if we are to receive the maximum enjoyment from our favorite flower. These are perhaps best expressed by Dr. Franklin Cook in an article published by The American Iris Society.

Dr. Cook wrote that muddy blends, clouded and over-patterned plicatas, and the violent contrasts of the variegatas present problems, and suggested they be but a small part of any iris composition; "Perhaps best planted by themselves for whatever satisfaction closer examination may give."

"It is the wide range of blues," he wrote, "which make an iris garden so attractive, and blues combine best with whites, creams, pinks, and yellows.

"A light blue, such as Great Lakes, looks well with one of the warmer whites and one of the cream yellows, while the deeper blue, such as Chivalry, is happily associated with Bryce Canyon, a henna-colored iris.

"With the still darker blues, brighter yellows may be combined, and with deep purples, such as Master Charles, a dark yellow like Ola Kala is excellent.

"Such light red-purples as Elmoehr need medium yellows. With the blue selfs we may use blue bi-colors like Amigo and the taller varieties of either paler blue of its standards or deeper blue of its falls.

"Clear, white-ground plicatas with blue edges, go well with self blues of the shade of the stitching of the plicata.

"The cool pinks, Dreamcastle for example, are better used with light yellows and creams; the warm pinks, Remembrance for example, are good with light yellows as well as with clear blues; the pink of the tangerine-bearded group is strengthened if the taller whites, and as pure blue as we have, are behind it.

"The paler shades of yellow are useful everywhere, much better peace-makers than the more insistent whites. The dark yellows are fine with dark purples, Master Charles or Indiana Night for example.

"Though many will differ with me, whites should be used with restraint, preferably with pure blues and pinks. They can, of course, be planted near white-ground plicatas or with white-topped amoenas, both of which pick up the white in reduced amount.

"The so-called reds go well with pure yellow."

New Creations and Novelties

Now, while standard varieties will answer the purpose of effective planting, we suggest that much of the individuality of any variety is lost in an iris border.

Consider, then, some of the new creations—Sable Night, Mary Randall, Violet Harmony, White Peacock, Blue Sapphire, Truly Yours, and a host of others that have received wide acclaim. Should these be blended in the border planting, or should a special garden or situation be created to contain them where as specimen plants the beauty of each in turn can be enjoyed?

Summary

1. No attempt should be made to develop a garden without a carefully worked-out plan and recognition of the esthetic value of each plant's

contribution to the composition.

2. As iris hobbyists we have many things in common; yet each of our gardens will be different, as each will reflect the originality, genius and imagination of the owner in creating pleasing color combinations, backgrounds, and arrangements.

3. Designation of plant material with easily read name plates adds character to any garden and is of special interest to those visitors who are variety conscious.

4. The garden should reflect the skill and knowledge of the owner in its care, growth, and maintenance—it should be scrupulously clean. Poorly grown plants may be all right for the owner but they have little or no attraction for discriminating plant critics.

5. Avoid crowding—a few well grown plants are preferred to a multitude of varieties in a congested situation. Featuring the unusual plant—whether rare or exceptionally beautiful—adds tremendous interest to any garden.

6. In its season of bloom, a collection of irises, exquisitely grown, and arranged in a well-planned design, is a vision to be remembered.

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3. *Color and Design for Every Garden*, by H. Stuart Ortloff and Henry B. Raymore.
4. *The Iris, An Ideal Hardy Perennial*, published by the American Iris Society.
5. *Wild Flowers for Your Garden*, by Helen S. Hull, Chapter 2, "The Ecology Story."
6. *The New Garden Encyclopedia* (Appendix), published by Wm. H. Wise & Co., Inc.
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BRITISH IRIS SOCIETY

Membership in the British Iris Society is open to members of our own Society. The fiscal year of the BIS runs from January 1 through December 31, and memberships run for those dates only. The membership entitles one to their very fine Yearbook which is normally published during the last quarter.

Annual dues are \$3.00, payable to Clifford W. Benson, Exec.-Sec., The American Iris Society, 2237 Tower Grove Blvd., St. Louis 10, Missouri. AIS members, joining the BIS now, will receive a complimentary copy of the BIS 1958 Yearbook; their membership commencing in January, 1959, for a period of one year. Dues then, for 1960, will be due in the St. Louis Office in January, 1960.

Present members of the BIS are reminded that dues for 1958 were due in the St. Louis Office this past January. If 1958 dues were overlooked, kindly forward yearly dues of \$3.00 to the St. Louis Office promptly.

PLEASE DO NOT FORWARD ANY DUES TO THE BIS
DIRECT TO ENGLAND



Officials view the Florence Competition iris beds for the first time. Left-to-right, Architect Bartolo, Comm. Mario Vannini, The Prefect of Florence, Professor Bargellini, Mrs. Specht, A city Official, the Chief of Police of Florence, and the Marchesa Ginori who is a permanent judge of the competition. In the background is a wall of the Piazzale Michelangelo.

AMERICAN IRISES WIN "PREMIO FIRENZE"

Announcement of the following awards in the International Iris Competition has been received from Florence, Italy: For 1957, "Premio Firenze" or First Prize, Rehobeth (Deforest); Second Prize, Cathedral Bells (Wallace); Third Prize, Tarn Hows (Randall). Honourable Mention was given to the varieties: Derwentwater (Randall); Hermit Thrush (Grant Mitsch); Hermann Hess (Peter Werchkmeister); Pink Cavalier (Wallace); Troutbeck (Randall).

For 1958, "Premio Firenze," Swan Ballet (Muhlestein); Second Prize, Picture Bouquet (Opal Brown); Third Prize, Altar Light (Opal Brown). Honourable Mention went to: Sweet Whisper (M. J. Brownell), Bingham (Muhlestein), Golden Splendor (G. Dubes and R. Young), Gay Princess (Opal Brown), Commodore (G. Dubes and R. Young).

Judges were: Harold C. Fletcher, G. Luigi Sani, M. Teresa Parpagliolo Shepard, M. Pia Ginori-Lisci, and Nita Radicati Stross.

My Work with Lace

GORDON W. PLOUGH, Wash.

My lace iris all stem from Chantilly. As most everyone knows, this is an orchid colored iris with rather long droopy falls. The edges of the petals are crimped, twisted, and curled, with little hornlike formations sticking out from the petal surface. This gives a frilly or lacy effect and a new definition of lace is born.

Amongst hundreds of crosses made in 1949, three crosses were made probably more with the thought of improving the form of Chantilly, than starting a line of lace breeding. These crosses were all made by use of pollen from Chantilly on Cascade Splendor, Gold Ruffles, and Midwest Gem.

After much testing, three seedlings were selected, one from each cross, for introduction. These were Futuramic, from (Cascade Splendor X Chantilly); Colockum, from (Gold Ruffles X Chantilly); and Quest, from (Midwest Gem X Chantilly). These basic crosses have been and are still much in use here in our lace program.

In 1951, Mr. Alexander Maxwell of the Iris Test Gardens in Yakima gave me pollen to use from one of the late Mr. Luke Norton's fine seedlings. This was a blended pastel beauty from (Chantilly X Rainbow Room), which was later registered and introduced as Twenty Grand. I consider this one iris the greatest breeder for lace there is. We have used it heavily, and are still using it, ever since we realized its potential.

Cliffdell, another Norton variety, was also used to good advantage in a much lesser degree.

From Twenty Grand came Alice Lemen, Butterscotch Kiss, Caribou Trail, and Riviera. From a cross of (Quest X Cliffdell) came Crinkled Sunset and First Flight. Colockum was crossed with a heavy blue seedling from (Chivalry X Blue Rhythm) to start a line of lacy blues. Futuramic was used a lot, mostly with pink lines.

1952 was an off year. Few crosses were made and none were significant in the lace picture.

In 1953, a rather involved cross was made (((Chivalry x Blue Rhythm) x Chinook Pass) X Ruffled Gem) to further the lacy blue line. This produced fine groundwork, for the blue line also brought out some very leathery blue-brown blends. A beautiful lacy yellow seedling of Robert Innes', from (Ruth X Rainbow Room) was used with pollen from Mary Randall. This produced yellows, hennas, and one white with a tangerine beard. This last one had serrated petal edges and figured heavily in later crosses.

In 1954, the most significant lace crosses were the following: (Ruffled Gem X Twenty Grand) and (Ruffled Gem X sib. to Butterscotch Kiss). These produced beautiful lacy numbers in maple sugar coloring. Some

of these may be introduced after further testing. (Sib. to Butterscotch Kiss X Sugarplum) brought further new blood into our lace program and gave some beautiful blended pink and tan lace numbers.

In 1955, Butterscotch Kiss was crossed with the tangerine-bearded white Mary Randall seedling, mentioned previously. This cross produced almost 100 per cent deep golden yellows with varying degrees of lace. One of these will undoubtedly be registered later on.

To bloom from the 1956 crosses this spring for the first time are such things as these: (Alice Lemen X Pink Fulfillment); Caribou Trail X Colockum, Crinkled Sunset, and My Darling); (Colockum X Frances Kent); (Evening Star X Colockum); (First Flight X Sugarplum sdlg. previously mentioned); (Frances Kent X Butterscotch Kiss); (Mission Gardens No. 51-33 X First Flight); (Pretty Gay X Butterscotch Kiss); (Quest X Frances Kent); and lots of involved seedling crosses.

In the 1957 crosses, are to be found many more lace crosses. These run heavily to whites with new blood provided by Angela Mia, Cloud Dancer, Queens Lace, Pretty Gay, and Swan Ballet; apricots by using the new La Paloma; and tans with Yesteryear and Sweet Harmony. Of course the involved crosses with seedlings and sibs are being carried on, too, so advances should be on the way.

Some iris, such as Twenty Grand, transmit the crinkling or lace readily to their offspring. Others do not. Such is the case with our results from use of the beautifully crinkled and shirred Limelight. We have never had any really good seedlings from this one to show the lace edging. Ruffled Apache is one of the most heavily laced iris in commerce. Its seedlings also have this intense crinkling, but it tends to carry over its rough haft to its offspring.

In 1958, new lines are planned to put lace on amoenas, reds, and blacks. Ruffled Apache will be further tried here with the red and black crosses. Basic crosses will be made to get a start on lace for these colors. It will probably take several generations to get anything good.

The public wants lace, and we are trying hard to provide it for them. We are not hidebound in our use of breeding material. We firmly believe in obtaining the best stock with which to use in breeding. So we are constantly on the alert to get the best advances from the other fellow for blood refreshment.

We are in hope that Celestial Snow, Sabrina Fair, Frosted Lace, Heathermist, Uintah, Lavendula, Oyster Pearl, Carmela, Mallow Lace, Blue Debut, First Curtain, Yellow Lace, Dr. Wanlass, Gay Princess, Cherito, and others will give us vigorous new blood lines and new help in furthering our lace program. We'll try them all.

When you consider that in addition to lace, the iris selected for introduction here must meet all the other requirements of a good iris, then you can see what a hybridizer is up against. We have bred some of the laciest "dogs" imaginable. These are discarded fast, and we profit in knowledge by our mistakes.

PROMISING INSECTICIDES

FOR THE CONTROL OF THE IRIS BORER

DONALD L. SCHUDER, Department of Entomology
Purdue University

The iris borer (*Macronoctua onusta* Grote), is a native of the New World and was first described in 1874 from specimens collected near Chicago, Illinois. The larval stage is a severe pest of German, or bearded, iris. It has also been reported to infest *Iris versicolor*, *I. sibirica*, *I. kaempferi*, *I. pseudacorus*, *I. spuria* and *I. tectorum* according to Dietz, 1928 and Schread, 1957. According to Schread (1957) it infests the German lily and the blackberry lily, *Belamcanda chinensis*. The insect is distributed over the northeastern United States and Canada according to Ries, 1929.

Life History

The borer overwinters in the egg stage on old dried iris leaves. In late April and early May in Indiana the larvae hatch. They crawl up the leaves and bore into the interior of the leaf leaving a small opening. They feed on the tissue between the leaf surfaces and work downward inside of the leaf toward the rhizome. Their feeding causes the edges of the leaves to appear ragged and the leaves to contain water-soaked spots. Later these areas turn yellow, and if the leaves are heavily infested, the entire fan may turn brown. The larvae usually reach the rhizome early in July and proceed to hollow it out, often leaving only a paper thin skin. At this time the larvae are about one inch in length and pink in color with a brown head. As the larvae grow, they produce quantities of wet slimy excrement in which bacteria and fungi develop and cause a characteristic foul odor, Breakey, 1929. The mature larva, about 1¾ inches long, may tunnel through several rhizomes before pupating in the soil, usually five or six inches away from and below the iris clump. The pupal stage, which is brown and shiny, lasts about a month. The moths, which are brown and suffused with purplish black with a wing spread of 1½ to 2 inches, begin to emerge in mid-September and continue until freezing weather. After mating, the females lay their eggs on dried twisted iris foliage usually in groups of 100 or more, Griswold, 1934. There is a single generation each year.

Control Measures

In the past, a number of different practices have been employed to control the young iris borer larvae. Arsenate of lead, nicotine sulphate, derris, pyrethrum and DDT have been used, but repeated treatments were necessary to protect the rapidly developing foliage, Schread, 1957. Carbon bisulphide emulsion has been used as a soil drench to kill the borers without injuring the foliage or rhizomes.

An important cultural practice has been to clean up and burn all old plant material prior to egg hatch in the spring. Another successful method

of control was to burn over the iris beds with a flame-thrower or weed burner. However, some rhizome injury may result from this practice.

Experiments

In 1956 a co-operative experimental control program was initiated with an iris grower near Bluffton, Indiana who had an old infested planting. The infestation was well advanced, on June 28, when the first series of experimental sprays was applied. Since most people do not notice the infestation until about this time, any effective control measure found at this season would be exceedingly appropriate.

Twenty different insecticide treatments were applied on June 28 and a second application was made to half of the plots on July 12, so that there was a total of 40 different treatments. The experiment was replicated four times. All sprays were applied with a Spartan sprayer operating at 200 p.s.i. Dupont's sticker-spreader was added to each spray to help stick the materials to the waxy foliage of the iris plant.

On July 15 and July 26, one clump of iris from each test plot was dug, the leaves and rhizomes dissected, and the number of borers, live and dead, recorded. On September 26, at the end of the growing season, the individual plots were rated on the basis of appearance. Damage was rated from 1 to 10 with 1 indicating no injury and the higher numbers indicating a progressively higher percentage of injury. A rating of 10 indicated that no healthy, uninfested plants remained in the plot.

The results of this experiment are summarized in table 1. On the basis of appearance late in the season, none of the treatments were highly effective, since most of the plots were in poor condition. Several materials appeared promising and, if applied early in the season, might prevent serious losses. The insecticides which appeared promising and worthy of further trial were endrin, Systox, Systox plus paradichlorobenzene, parathion, and DDT. In most instances two applications of the insecticide gave better results than did a single application.

1957 Experiment

A series of the more promising insecticides was applied at Bluffton (Indiana) on May 15 and 16 (1957) in the same manner as was used in the 1956 experiment, except that the treatments were replicated five times. At the time of application the first larvae were entering the leaves.

On June 19 the plots were examined. A total of ten leaves were examined from each plot, and the infested leaves were dissected and the number of live and dead borers counted. A count of the total number of infested fans per plot was also made. The results are shown in table 2. Examination of the data reveals that the mortality counts were not too accurate, but this would be expected since the larvae were quite small at the time and the dead ones could easily be overlooked. The Thimet, endrin, Guthion, Systox plus paradichlorobenzene, parathion, malathion, toxaphene, dieldrin, and Thiordan treatments all had significantly fewer live borers than the untreated check. There was no evidence of any phytotoxicity.

TABLE I

Results of Insecticide Tests Against the Iris Borer at Bluffton, Indiana, 1956

<i>Insecticide & Formulation</i>	<i>Applica- tions</i>	<i>Amount per 100 gals. water</i>	<i>Actual Concen- tration of tox- icant</i>	<i>Aver- age Mortal- ity</i>	<i>Aver- age rating on ap- pearance</i>	<i>General Perform- ance</i>
1. Endrin 19.5% Emul ¹	2	1 Qt.	.049	100	9	20
2. Endrin 19.5% Emul ¹	1	1 Qt.	.049	50	8½	19
3. Demeton 26.0% Emul ²	2	2 Gal.	.597	100	8	3
4. Demeton 26.0% Emul ²	1	2 Gal.	.597	8.3	7½	16
5. Demeton 26.0% Emul ³	2	2 Gal.	.597	100	7¾	1
-paradichlorobenzene (1 lb/10' of row)						
6. Demeton 26.0% Emul ³	1	2 Gal.	.597	50	8	9
-paradichlorobenzene (1 lb/10' of row)						
7. Parathion 50% Emul ⁴	2	1 Pt.	.062	83.3	7½	5
8. Parathion 50% Emul ⁴	1	1 Pt.	.062	91.7	9	30
9. DDT 25% Emul ⁵	2	2 Qt.	.124	81.5	8¾	6
10. DDT 25% Emul ⁵	1	2 Qt.	.124	25.9	8½	22
11. Korlan, 4 lb/gal Emul ⁶	2	1 Qt.	.124	75	8½	13
12. Korlan, 4 lb/gal Emul ⁶	1	1 Qt.	.124	31.3	8¼	37
13. Toxaphene 45% Emul ⁷	2	2 Qt.	.248	75	8	11
14. Toxaphene 45% Emul ⁷	1	2 Qt.	.248	12.5	8¼	29
15. Malathion 57% Emul ⁴	2	2½ Pt.	.194	75	8½	12
16. Malathion 57% Emul ⁴	1	2½ Pt.	.194	62.5	8¾	17
17. Guthion 2 lb/gal Emul ²	1	2 Qt.	.124	70	9	30
18. Guthion 2 lb/gal Emul ²	2	2 Qt.	.124	62.5	8¾	38
19. Heptachlor 2 lb/gal Emul ⁸	1	1 Qt.	.062	66.6	8½	33
20. Heptachlor 2 lb/gal Emul ⁸	2	1 Qt.	.062	50	8¾	24
21. Dieldrin 15% Emul ¹	2	1 Qt.	.046	66.5	7½	4
22. Dieldrin 15% Emul ¹	1	1 Qt.	.046	31.3	7½	23
23. Lindane 20% Emul ⁵	2	1 Gal.	.199	62.5	8½	26
24. Lindane 20% Emul ⁵	1	1 Gal.	.199	41.7	7½	27
25. Substituted Thionophosphate 4 lb/gal Emul ⁹	1	1 Qt.	.124	81.3	8	21
26. Substituted Thionophosphate 4 lb/gal Emul ⁹	2	1 Qt.	.124	33.3	7¾	25
27. Aldrin 23% Emul ¹	1	1 Qt.	.062	57.3	8¼	28
28. Aldrin 23% Emul ¹	2	1 Qt.	.062	50	6½	2
29. Chlordane 45% Emul ⁸	1	2 Qt.	.248	46.5	7½	6
30. Chlordane 45% Emul ⁸	2	2 Qt.	.248	25	8	10
31. Chlorthion 4 lb/gal Emul ²	2	3 Pt.	.186	50	8½	37
32. Chlorthion 4 lb/gal Emul ²	1	3 Pt.	.186	16.7	7¾	8
33. Thimet 4 lb/gal Emul ⁴	1	1 Qt.	.124	50	8½	35
34. Thimet 4 lb/gal Emul ⁴	2	1 Qt.	.124	25	8	14
35. Diazinon 25% Emul ¹⁰	2	3 Pt.	.093	25	7¼	7
36. Diazinon 25% Emul ¹⁰	1	3 Pt.	.093	49.2	9	40
37. Sevin 24% Emul ⁹	1	2 Qt.	.124	33.3	7¾	15
38. Sevin 24% Emul ⁹	2	2 Qt.	.124	29	7¾	32
39. Paradichlorobenzene ³	2	(1 lb/10' of row)		25	8¾	31
40. Paradichlorobenzene ³	2	(1 lb/10' of row)		0	7¾	39
41. Check-untreated				0		41
L. S. D. 5%				61.1	1.46	
L. S. D. 1%				80.8	1.96	

- 1/ Shell Development Company, Denver, Colorado
- 2/ Systox, Chemagro Corporation, New York 17, New York
- 3/ Monsanto Chemical Co., St. Louis 4, Mo.
- 4/ American Cyanimid Company, New York 20, New York
- 5/ United Co-operatives, Inc., Alliance, Ohio
- 6/ Dow Chemical Company, Midland, Michigan
- 7/ Hercules Powder Co., Wilmington, Delaware
- 8/ Velsicol Chemical Co., Chicago 11, Illinois
- 9/ Experimental insecticide 8305, Carbide and Carbon Chemicals Co., New York 17, New York
- 10/ Geigy Agricultural Chemicals, New York 8, New York

TABLE 2

Results of Insecticide Tests Against the Iris Borer at Bluffton, Indiana, 1957

Insecticide & Formulation	Amount per 100 gals. water	Actual Concen- tration of tox- icant	Mortality	Live Borers	Infested Fans
		Pct.			
DDT, 25% Emulsion ¹	2 Qt.	.124	4.4	2	6.2
Endrin, 19.5% Emulsion ²	1 Qt.	.049	33.2	.2	2.8
Demeton, 26% Emulsion ³	2 Gal.	.597	5.0	.8	6.2
Demeton as above, plus ³ paradichlorobenzene ⁴	2 Gal. (1 lb. 10' of row)	.597	20.0	.4	8.0
Parathion, 50% Emulsion ⁵	1 Pt.	.062	0.0	.4	4.2
Malathion, 57% Emulsion ⁵	2½ Pt.	.194	10.0	.6	2.8
Guthion, 2 lb./gal Emulsion ³	2 Qt.	.124	0.0	.2	6.2
Toxaphene, 45% Emulsion ⁶	2 Qt.	.248	27.6	1.4	3.8
Thiodan, 24.2% Emulsion ⁷	2 Qt.	.124	25.0	.6	4.4
Dylox, 50% wettable powder ³	2 Pd.	.124	9.2	4.0	6.2
Isotox Garden Spray M ⁸	2 Qt.	*	0.0	.8	5.6
Phosdrin, 100% Miscible ²	1 Pt.	.124	42.6	1.4	6.8
Thimet, 4 lb/gal. Emulsion ⁵	2 Qt.	.248	20.0	0.0	3.4
Thimet, 4 lb/gal. Emulsion ⁵	4 Qt.	.248	0.0	.4	5.0
Dieldrin, 15% Emulsion ²	1 Qt.	.046	18.0	1.0	4.2
Check—untreated			0.0	3.8	19.0
L. R. S. D. 5%			39.26	2.38	10.60
L. R. S. D. 1%			NS	3.17	14.08

* Actual concentration of the toxicants in Garden Spray M is as follows:

Lindane	.025
Malathion	.062
DDD	.025

- 1/ United Cooperatives, Inc., Alliance, Ohio
- 2/ Shell Development Company, Denver, Colorado
- 3/ Systox Chemagro Corporation, New York 17, New York
- 4/ Monsanto Chemical Company, St. Louis 4, Missouri
- 5/ American Cyanamid Company, New York 20, New York
- 6/ Hercules Powder Company, Wilmington, Delaware
- 7/ Niagara Chemical Division, Middleport, New York
- 8/ California Spray Chemical Corporation, Richmond, California

Conclusion

All of the insecticide treatments had fewer injured fans than did the untreated check. Nearly all the newer insecticides gave a higher percentage of mortality, had fewer live borers, and fewer injured fans than did DDT which is the material commonly recommended for iris borer control.

Although several materials appeared promising, the most satisfactory materials for grower trial would be endrin, Guthion, and malathion.

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Garden featuring Japanese Iris, Horikiri, Tokyo.

photo by manley osborne

Japanese Iris Notes

Mr. W. A. Payne of Terre Haute, Indiana, has kindly agreed to answer questions raised in the Japanese Iris Robins. The following questions have been answered by him.

1. What is the secret of getting bloom the first spring after fall planting?

"There is no certain way of getting bloom the first summer after planting as there are so many conditions affecting their blooming, such as weather and soil, the rigors of shipping and many others; however, late summer or early fall planting of strong, natural divisions with fans having side shoots and taken from vigorous one- or two-year-old stock or the transplanting of medium-sized, one-year plants—either of which when given thorough watering until they become established in their new location offers the best assurance of bloom."

2. Have you developed any special techniques for collecting or storing pollen and for making your crosses? Do you use buds or bagged blossoms for your crosses?

"Since bagging the flowers is the only sure method of preventing extraneous fertilization, all of my crosses are bagged. The buds are covered in early morning and the stamens removed a few hours later before the pollen is ripened, and the flower is pollinated the following day. I wrap and tie with a piece of raffia collected stamens in a plantain leaf on the back side of which has been written in pencil the plant number eight or ten times. Ordinary room temperatures are generally satisfactory for storing these until ready for use, but in extremely hot and humid weather they are placed in the refrigerator. This is a very simple and easy method of handling which allows little chance of mixture and the pollen keeps fresh for several days. I have had no experience in storing pollen over a long period."

3. Do you consider the line-breeding of Japanese Iris worthwhile?

"Definitely yes."

4. What varieties do you consider good parents?

"The Yokohama variety Ai-fukurin has proven an especially good breeder and its parentage runs more or less throughout my strain, however, I have not used it for many years since most of my crosses now are from new or comparatively new seedlings. Mahogany also has given good results in a different way. Of my own seedlings Miss Simplicity and Imperial Robe are especially good parents."

5. Which of your introductions do you consider your best?

"This is a difficult question to answer since I feel most of my varieties possess some outstanding characteristic, and, with few exceptions, I often think the last variety I have seen is the best; however, I rather favor Cobra Dancer although the Great Mogul

shows promise of being the best, but it has not been under observation long enough to definitely establish its superiority."

6. Do you think it would be possible to produce a yellow Japanese iris?
"Inasmuch as a slight yellow is occasionally present in the styles of some Japanese iris varieties, it is my opinion it could be intensified and a true yellow variety eventually produced by breeding entirely within the *Iris kaempferi* species as developed by the Japanese. It, however, would require many generations of systematic breeding but, I believe, would be preferable to the use of extraneous species."

7. How and when do you plant your iris seeds? Have you a special technique for handling seedlings?

"With my method of handling, late fall or early winter sowing of seeds has given best germination. These are planted in rows at least two inches apart in numbered flats which are stored outdoors and mulched during winter. Protection against the depredations of field mice is necessary and seed must not be allowed to dry out. After removal of mulch in spring, flats are shaded until seedlings are well started, then shade is removed and seedlings are kept growing by occasional light applications of fertilizer (the acid kind) until fall when they are transplanted to prepared trial beds in which plants are set six inches apart in rows spaced one foot apart. This method seems about the surest for preventing varieties becoming mixed, and generally 50 per cent of plants bloom the first summer."

8. Can you accurately judge a seedling at its first blooming? Is irregularity of size or shape of petals a fixed characteristic?

"The first bloom of a new seedling is seldom if ever typical of the finished variety, and color or form or both are likely to change. Japanese iris seedlings apparently undergo a process of evolution and the finished variety depends upon when the process of development ends, which generally is not before the second or third blooming. Thereafter the characteristics are fixed and remain constant on well grown plants."

9. How do you prepare and package Japanese iris plants for shipping?

"Washed plants are surface dried, and the roots are enclosed in polyethylene bags to prevent evaporation of moisture. Plants are packed rather closely together in ventilated cartons with excelsior between the foliage to allow circulation of air about the top of the plant."

10. Are Japanese iris buds formed in the fall, as in the Tall Bearded iris?

"Flower buds are formed in the late summer and fall on Japanese iris. For this reason one fan division should be planted early, otherwise it may bloom and die off the following summer."

Mr. Payne adds, "It may be of some little interest that in preparing ground for Japanese iris a liberal application of spent hops, a waste product from our local brewery, has proven most beneficial since it is acid in nature and supplies an abundance of humus in which the roots of the Japanese iris revel. I use ground corn cobs as a winter mulch and heretofore have removed them in spring, now I plan to leave them on for the summer and apply ammonium sulphate to replenish the nitrogen in the soil, although this must be used cautiously as I have had severe loss of plants from overfertilizing."

Tips on Growing Japanese Iris

"Probably the best planting of Japanese iris in the Tokyo vicinity is at the Meiji shrine. The setting is quite beautiful. The iris are located in the center of a small valley, thus sheltered from the occasional typhoons, and at the head of a small lake which abounds in many large carp of beautiful colors. The beds are really terraced paddies similar to rice paddies, with small dikes built to hold the water at a constant depth of several inches in the spring. The water is really running water, since the paddies are in the center of the valley through which a small stream flows feeding the lake. Japan receives much rainfall during the iris-growing season, so I am convinced, after seeing the results here, that adequate water, preferably running water, is essential for best results. Two other wonderful iris gardens are located at Korakuen and Horikiri in Tokyo. However, at these gardens the water with which the paddies are flooded is not running water, and there is a difference in the quality of the flowers, though they are still of outstanding quality. Seed is available in Tokyo, but I have been unable to find any Higo seed. High quality plants of named varieties can be had for 50 to 60 yen (13 to 17 cents), but air postage would be expensive to the States." Cdr. Manley Osborne, USN, White Sands, New Mexico

"The varieties that I now have are growing in a bog that I made by building an inside wall in my lily pool. They grow to four or more feet here with almost no care. Also in the bog are *pseudacorus* and Japanese species, *laevigata semperflorens*, that blooms from spring until fall. It had its last bloom on October 29th. I am a flower arranger and find the Japanese iris the easiest of all the irises to handle in an arrangement and the most effective." Mrs. John McInnis, Sr., Minden, La.

"I grow my Japanese iris in rows in the garden. They are in full sunlight and mulched. I feed them heavily in spring and mulch and keep fairly well watered in summer and dry weather. With my mulch, I don't have to water as much. The ones I have in shade, even slight shade, don't do as well as far as growth is concerned, nor is bloom good. Planting of new varieties is usually done in fall but I transplant almost anytime. I've even had bloom after moving in spring but **WOULD NOT RECOMMEND THIS**. As a rule, I get bloom on new plants the second year, but have had lots the next year after planting." Sam Luck, Brooklandville, Maryland



Meiji Shrine, Tokyo

photo by manley osborne

“My Japanese iris are planted in what used to be a rose bed, on the south side of a building where I can control the amount of water from a rain spout. One plant, given to me four years ago and planted in the border with other perennials, bloomed for the first time this year, a beautiful white. This would indicate that they can take neglect but perform so much better with some care. I mulch with peat litter from the chickenhouse.” Mrs. Nelson Gayer, Seville, Ohio

“All are grown in beds in ordinary garden soil which is an acid one. Azaleas, rhododendrons, mountain laurel grow naturally and profusely here in the mountains, so this area is perfectly adapted for Japanese iris culture. Have no winter or bloom losses in late spring as with bearded—in 1956 about 75 per cent of the bearded bloom stalks froze, and this year about 50 per cent were frozen or badly damaged by late freezes. We have weather 20 to 25 degrees below zero at times with no injury to Japanese iris. Don’t like fall planting; freezing and thawing weather heaves plants which are set out late and which do not root sufficiently. I do transplant all summer, April through the first half of August . . . with no losses; plants are kept moist and shaded temporarily. Seedlings bloom (a very few) the second year, most of them the third year, and a few not until the fourth year. Start to open June 15 to 20 and continue for about a month. Have had a few plants which bloomed until late August; in fact, I have had a few flowers on Labor Day. But never the same plant . . . have never tried forcing them.” Cloyd Sensenbach, White Haven, Pa.



Meiji Shrine

photo by manley osborne

“Our soil is very light sandy loam. It, of course, drains well (maybe too well), but still seems to hold quite a bit of moisture. My Japanese irises grow about 5 feet with the following care: I use much manure and leafmold in February, spaded in, and then a leafmold mulch on top. Commercial fertilizer goes on at least twice during the growing and blooming season. Last year I tried an experiment. On one half of the bed I used horse manure and leafmold and on the other half, seaweed and kelp. I found that the ones that got kelp did considerably better than the rest. They grew over five feet on occasion and the flowers were a little larger. Since I can’t flood the bed because our drainage is so good, I try to make up for it by soaking twice a week during the growing season. The heavy leafmold mulch that they get helps to hold in the moisture. . . . A friend has a natural underground stream running through his back yard, and he has some three hundred Higos planted there. The ground is constantly damp but not swampy, and his plants were over six feet last year and the flowers at least twelve inches. My best were only ten inches. . . . This year I crossed some of my best pink seedlings back to their parent, Karahashi. (I’ve read that Karahashi is the parent of all pinks.) It is one of my favorites as far as colors go, but its growth habits aren’t as good as some others, for me, at least.” Elwood Molseed, Fort Bragg, California

Fabulous Shreveport, Louisiana

MRS. A. P. WALTHER, La.

What a fabulous season Shreveport, Louisiana has had with ALL iris. The various iris seasons blended like acts in a stage show. The curtain went up in November and—ENTER—the precious STYLOSIS. They were still occupying the center of the stage in February when our Editor, Geddes Douglas, lectured to the Shreveport Iris Society. However, soon after Christmas the DWARFS began putting in their appearance and edging towards the center of the stage to pep up the show. Blazon was the leading lady with the following in the chorus: Tiny Treasure (Hill); Promise (Cook); Bronya (Hill); Flaxon, Parakeet, Blue Band (Cook); Cherry Spot (Welch); Little Elsa (Muhlestein); Path of Gold (Hodson); Black Baby (Sass); Blue Mascot (Marx); Ablaze (Welch); Violet Gem and two oldies, but among my favorites, Maude Demon and San Gabriel.

The main act of our iris stage show started in March and is still holding forth. The main act, of course, was our BEARDED. We had two full weeks of rain and high winds to test the stamina of the best iris. With very few exceptions, they all put on a good performance. The following received the greatest applause:

Black Hills (Fay), a stunner in a clump, black purple, is very happy planted by Happy Birthday (Hall) and on the other side is delighted to have Paradise Pink holding her hand.

Sable Night (Cook) is doing well for us with such a live black and is bringing forth many "oh's and ah's."

Rehobeth (DeForest) and Lady Ilse (K. Smith) are two beauties in blue; both are extra large and withstood the rain and wind without a murmur.

The Citadel (Watkins-Graves), this pure white was unparalleled in our garden (all their iris do well for us).

Truly Yours (Fay), the bloom, yes, what a dream, but the stalk has snaked for us the past two years.

Cathedral Bells (Wallace), she was perfect in her pink, stately dress.

Blue Sapphire (Schreiner) and Sierra Skies (Shortman) are two more blues that are unusually distinctive and do extra well for us.

Queen's Taste (Douglas), very bright and velvety, different, and a "must" in your garden.

Senorita Ilsa (Rogers), very large, broad-petaled white, good form and heavy substance.

Altar Light (Brown) was quite a hit; the light buff-yellow shading to white was beautiful in the sun.

Queen's Lace (Muhlestein), creamy white flowers with the standards and falls so heavily crimped that it stopped the show for an encore.

Cinnemon Toast (Sass), a honey of a creamy ground plicata.

Carmela (Schreiner), a beauty of golden amber with such broad falls.

Port Wine gave a very good clump effect and is a favorite of mine. Also Raspberry Ribbon which is a shade darker.

Helen McCaughey (Wild), what a beauty, but not as lovely as the grand person for whom it is named—none could be. (See you in Oklahoma in '59.)

Gold Cup (Murray), one of the best yellows I saw this year.

Butterfly Blue (Fay), nicely ruffled, light blue, it thumbed its nose at the wind and the rains.

Tranquility (Fay), what a white and so well named, and that is the way it took the worst weather, with tranquility.

May Hall (Hall), a good flamingo pink, very clear and bright.

Cascadian (Linse), a very fine white with good substance and spacing.

Kiki (Graves), my hat is off to you, a marvelous medium blue and bloomed from the first of April until the end of April.

Solid Gold (Kleinsorge), an excellent deep, smooth yellow.

Ice Carnival (Watkins-Graves), it took my breath away. Very flaring flower with white falls and full standards of very light azure blue, frilled and ruffled with good substance and branching, it withstood the winds and rain. I love it.

Prince of Monaco (Kleinsorge), red-violet and violet bi-color with striking gold beard-texture.

Dotted Swiss (Sass), outstanding plicata.

Pretender (Cook), put on a beautiful show, a new variegata with cold yellow standards and violet purple falls.

Northwestern (Cook), has been an eye stopper, a tailored deep purple with a regal look.

A planting of My Happiness, Pastella, and Apricot Glory in Minnie Colquitt's Garden was breathtaking.

Violet Hills won the AIS outstanding award in our Shreveport Iris Society Show. Mr. Ed Dickinson won the Silver certificate and Mr. R. A. Edmonds won the Bronze Medal. The Iris show was staged by Mrs. W. R. Mathews and was worthy of a Broadway Production.

I cannot leave out the following members of our cast as they are more than worthy of mention: Witch Doctor, Gay Paree, Orchid Ruffle, South Pacific, Caroline Jane, Constant Comment, May Magic, Sky Crystal, Trim, Limelight, Dreamy, Big Ute, Cloud Cap, Storm Warning, Leading Lady, Ballerina. Last but not least I give mighty applause to Two Snows (Mrs. Scott) as she can take anything. She has come through rain and wind still starchy white and very, very trim. Mrs. Nesmith's heavenly pink Demure also proved herself hardy as well as beautiful.

The side show that was performing along with the big show is more than worth mentioning. The SPURIAS; Saugatuck (Nies) won the award of distinction for Minnie Colquitt in our big Holiday in Dixie Show. Among the beauties were Butterfly (Brenan), what a good brown; Sunny Days (Sass); Wadi Zem Zem (Milliken), she is a dream; Cherokee Chief (Nies); Dutch Defiance (Nies), how blue and with the yellow signal

perfect; White Heron (Milliken), so big and beautiful; and Fairy Light (Thorup).

The last act of our play is still going on with the LOUISIANA IRIS Wood Violet (Dorman) in the center of the stage accompanied by the following beautiful chorus: Locketts Luck; Delta Treasure (Mathews); Dixie Deb, what a soft yellow; Bayou Sunset (MacMillan); Persian Pink (Dorman); Royal Velour (Conger); Ruth Dorman (Trichell); Sarah Gladney (Conger); Southern Accent (Gorton); Sunny (Smith); Upstart (Dorman), she is a winner.

Texas Iris Season

ILA NUNN, Houston, Texas

Iris season and storm season are coincident in Texas. For several years Iris Show planners have been plagued with rain, hail, and cyclone; but the "show-must-go-on" spirit has prevailed. There ought to be a special medal for those courageous ones who stand by their decisions in the face of Texas weather with only faith, hope, and iris gardens that seldom let them down to carry them through. Postponements of show dates came from Belton and Dallas, and the peak bloom season seemed to wobble all over the calendar, but no one backed down. And though the quality of Dallas shows was affected by adverse weather, the public thronged to see the iris, and the viewers of every status, as well as the judges before them, showed inclination to make allowances for condition. Classification committees and judges need to tighten up on inaccuracies of nomenclature, and it would be helpful if the exhibitors, including guests, tried harder to check identification of their irises, both old and new.

Devotion to irises amongst AIS members may best be described as keen. On the trip from Dallas to Wichita Falls to see the Rogers and Benson gardens with Mrs. Vernon Cox, who had won the sweepstakes for highest number of blue ribbons in the show of the Iris Society of Dallas, we were involved in a collision wrecking her car and causing us painful injuries. After the first shock and the relief of knowing we were still alive, the knowledge that our injuries would keep us from the immediate care of our iris, already in danger from fungus and rot, caused almost as much distress as physical aches and pains. The Dallas gardens we had left behind were water-logged, and Mrs. Cox knew her fine irises such as Pink Sensation might be a total loss if someone didn't act. In my mind were the chores in the garden at home to counteract mustard seed fungus on the Spurias, which had started before the bloom season was over. Iris gardeners can't afford to get laid up in the late spring. Needless to say, we didn't make it to Wichita Falls either.

In Dallas I had visited the garden of Mr. and Mrs. M. W. Norton, Jr., on May 4, and although rain had damaged many a bloom, there was much to see and admire. Classic Yellow showed huge fat buds and I hear is an important newcomer. Mr. Walker's bicolor, Channel Islands, was in

splendid bloom here. When I close my eyes I can still see Fleeta, a clean ruffled pink not soon forgotten, very vigorous and of a clear flamingo color. Too bad there is no official color class for shows, called PINK; light or medium red just doesn't fit the pinks. And there was June Meredith, a deeper shade, unusually rich with good substance and form. Tall Cathedral Bells, that lightest of all peachy pinks and slightly crinkled, stood out as the fairest of the fair. All these brought to mind the John Pierce garden in Memphis in 1957 featuring his pinks and blues, Memphis Belle, Rose Sails, Celestia, and sister seedlings.

A new white, Inverness, of excellent form, was on view; but I didn't get to see a good bloom of Queen's Lace, although, even rain-damaged, it showed its fine quality, lacy edges, and creamy texture.

I visited the Burge Garden in Denton on May 6, a beautiful, sunny day, although the sandy garden soil was still in a heel-ruining state of moisture. Despite having been weakened and flattened a few days earlier by continuous rain, and suffering hail and wind two weeks before that, the iris with few exceptions were bravely erect and putting on a fine late show.

Bright Hour, Lantana, Techny Chimes, Tranquility, Favorites with Uninitiated

While getting acquainted with the new iris, I also observed with half an eye the steady stream of callers, local and otherwise, and listened with half an ear to their exclamations of delight, and sometimes puzzled comments, as they studied their price lists. It is both interesting and profitable to listen in a garden to those who do not know the new from old, nor name nor fame, but who are entranced with beauty only. Eyes were drawn again and again to several clumps of Bright Hour, its clear colors truly brilliant in the sunshine. A planting of Lantana, a bright blend of tan and rose attracted the visitors' admiration. Techny Chimes, truly an outstanding yellow, was in excellent form. And across the garden a tall white favorite turned out to be Tranquility.

Is this a "blue" year or did I just hear more about exciting blues on this Texas trek? Anyway my dreams are "blue" since I returned. First I feasted my eyes on Blue Sapphire which deserves all the praise and top billing. New to me were Ruffled Starlight, near perfection of blue satin elegance; Blue Cliff, another good blue with a silver sheen on the falls; and Muted Music, white bearded blue of flaring falls. Corey's Beacon Hill, pale blue and ruffled, made me recall seeing in Dallas, Beth Corey, a very fine clear blue with yellow beard. Then I was asked to gaze upon the handsome Galilee, a true blue if I ever saw one. I thought Rehobeth, Eleanor's Pride, and Regina Maria had my blue votes, but don't ask me now what I like best in blues.

Also new to me in the Burge Garden were Waxing Moon, a lovely yellow, and Golden Garland of unbelievable texture with clear yellow standards and velvety white falls very narrowly rimmed with yellow. Total Eclipse was the blue-black beauty showing perfect form in both

the Norton and Burge Gardens, larger and obviously adapting better than the red-black Sable Night, so unique and sought after for that russet beard. A planting of Black Taffeta seemed to attract the camera fans. In the same bed I was glad to find Frey's Belton Beauty, still in bloom, a Texas iris I had come to see. It holds its strong blue color well in rain and sun, has good form and substance.

I was glad to see for the first time Cliff Benson's Starlift, a smoothie in blue, and deep pink Flirtation. Patience, a handsome magenta favorite and the red-violet Majorette I enjoyed again for their handsome form and vigor.

On my return to Houston, May 6, all iris had bloomed out except the Spurias Blue Zephyr and *I. sintenisii* in the Test Garden and a few late blue foliosas and purple bearded. The mail each day brings the news from the region's far corners.

South and west of here is mild-wintered San Antonio where bearded iris grow with variable success. Mrs. J. B. Etheridge reports their season as really starting in November with the fall bloomers. The breaking of the long drouth with winter and spring rain and the cold winter brought out all the iris, "the Northern propagated ones as well." Mrs. Etheridge says, "This iris season has been like a shot in the arm to the iris enthusiasts of South Texas. Especially have those of the blood-lines of Purissima and lateral lines been on their best company manners. With the weather co-operating not a stem has snaked and not a bud was frozen."

Deep in the Heart of Texas

Elizabeth Reneau, garden consultant and iris judge of Belton, who keeps tabs on Remontants, Medians, and Arils, also Talls, reporting on "Iris in the Heart of Texas":

"It is hard to give the season of bloom of iris in this climate. They want to continue from early fall to late spring. The blooming started in September with Sangrael, Eleanor Roosevelt, and Joseph's Mantle and continued through November. Kochii started the blooming season in January with Sousun and the "Old White" as it is known here. Winter-blooming Stylosas helped fill the gap from December to February. Then the early yellow Gold Imperial joined the chorus along with the dwarfs—Cyanea, Florida, Fairy, and Alba. Kochii, not to be outdone joined the blooming season again in April with the Tall Bearded. The peak of bloom here of these is near April 15 as a rule.

"I had the honor of helping judge the Temple Iris Show and was clerk to the judges at the Belton Iris Show and so had a first hand view of the show material. I was amazed at the quality of bloom after the bad weather we had experienced.

"We do need to pay more attention to the remontant iris in this mild climate. Noted this season: Autumn Haze, Autumn King, Autumn Queen, Autumn Sunset, Gibson Girl, Happy Valley, Hit Parade, Pink Lace,

Ranger, Royal Band, Sangrael, Sousun, Southland, Tiffany, Tournament Queen, Ultra."

Way out west in El Paso, Mrs. C. E. Ezell explains the three bloom seasons in that area starting in late February and running through April, according to altitude and protection, but says the iris sometimes lose their calendar and bloom all at once, early, midseason, and late. She says, "Our best bet is the Oncobreds yet the parents don't like us at all. Our locality is well suited to all iris except Holy Land varieties; the hot winds put these out of the picture. A few fanciers grow the Oncos in special places, but these are not for the novice."

In the middle west, Mrs. Clyde Daniel of Abilene, Texas, reported bloom starting with middle of April, about two weeks late, and the season expected to run well into May. Of about one hundred and fifty varieties she grows, she expects bloom on all except three or four, reports very little root rot or scorch. She used superphosphate about six weeks before bloom started and reports colors very rich and vivid. She lists among those giving gorgeous bloom: Cherie, Argus Pheasant, Blumohr, Blue Rhythm, California Peach, Chantilly, Chivalry, Copper Medallion, Desert Song, Frances Craig, Golden Russet, Golden Ruffles, Hit Parade, Hi-Time, Malay, Melody Lane, Pinnacle, Pink Sensation, Rodeo, Sunset Blaze, Spanish Peaks, and Zantha.

Mrs. M. C. Neal of Vernon reports, "Iris—Queen of the Garden in our area, grown more than any other flower. All varieties thrive in our locality and multiply so fast it is necessary to divide every two years. In some of our iris shows New Snow has received 'Best Iris in Show' awards, grows so large, is beautifully formed, nicely ruffled."

Ah, Wilderness!

Mrs. George M. Edwards reporting on seasonal news of the San Angelo area describes herself, "As an iris grower of no importance, only for pleasure, but I can not resist the excitement of crossing the beautiful flowers. As a result, I have a wilderness of *my* varieties. You know the percentage of good ones." This might well describe the average iris grower down Texas way and elsewhere.

But northward in Wichita Falls more serious hybridizing is undertaken. Mr. Z. G. Benson reporting:

"The 1958 iris season in the Wichita Falls area was more than a week late, but it was one of the best in several years. An unusual amount of rain fell during the blooming period, in fact, there was rain almost every day.

"The Clara McMurry garden in Henrietta, Texas, was moved and transplanted to a new location the first week in December. Yet the following varieties were outstanding in performance: Techny Chimes, Black Taffeta, Sierra Skies, Snow Goddess, Lady Rogers, Rehobeth, May Magic, Glittering Gold, Big Ute, and Orchid Ruffles.

"In the Guy Rogers Garden, these among other varieties were outstand-

ing: Blue Mesa (Z. G. Benson), the best dark blue, well branched, heavy substance, that bloomed in this area.

"Little Dude, another Benson iris, a light blue self, flaring falls; it is a perky one for the border.

"Chipeta (Benson), a raisin-red, relatively new color break.

"Other outstanding performers: Sierra Skies, Lady Ilse, Techny Chimes, Sky Crystal, Eleanor's Pride, Wayward Wind, Demetria, Ruffled Taffeta, Mary Randall, Harbor Blue, Celestial Blue, Blue Sapphire, Arabi Pasha, Frances Craig, Belle Meade, Regina Maria, and blooming to perfection were Guy Rogers' introductions, Lady Rogers, Senorita Ilsa, and Front Gate; also a pink seedling 56-1 seemed exceptional as it bloomed this year; it has serrated standards and falls, good smooth color. Wallace seedling 56-169 was a good dark blue."

Back to Central Texas, we have Mrs. Joe L. Bergin of Dallas reporting:

"Iris Society of Dallas garden tours were made on the twenty-sixth and twenty-seventh of April. Both days the rains came and came again, but a large and representative group from the club trekked about in rain-coats and rubbers, saw many beautiful iris blooming between showers.

"Because of late freezes and hail storms, bloom was delayed about two weeks. Because of excessive rainfall, bloom stalks on most of the earlier varieties were tall and rank and required staking. As a rule, blossoms were smaller than usual on all types of iris, Louisiana, Spuria, Dutch, as well as the Tall Bearded.

"In my garden where I feature Oncocyclus and Oncobreds, bloom was late and spotty. On April 3, two weeks late, *Susiana* blossomed, followed by Haynei and Acutiloba, then the Oncobreds i.e., Joseph's Mantle, Fancy Work, Gaza, Cerulean, etc., put in an appearance, followed by the Regelias, some of which are still in bloom today, May 9.

"Older and longer established clumps of Tall Bearded seemed to be undaunted by the elements. Among these were Palomino, Happy Birthday, Helen McGregor, Pierre Menard, Happy Valley, and Montecito."

On May 2, Mr. M. W. Norton Jr. reported the best blooming stalks in his garden were Inverness and Beth Corey. This garden, riddled by hail, came back to a gorgeous show of color with its peak blooming around May 8 and 9.

In Denton, Mr. Burge's garden was visited May eighth. The lovely Frost and Flame was doing handsomely; Chinese Lantern was gorgeous; Silver Chalice, Ruffled Starlight, Pink Chimes, Annette, and the crystal-line blue of Galilee filled the garden with beauty. Mr. Burge kept a list of good blooms he had had through the season. Among these were: Belton Beauty, Techny Chimes, Celestial Blue, Fleeta, Waxing Moon, Queen's Lace, Ruffled Starlight, Galilee, Crinkled Ribbon, Taholah, Big Game, Rehobeth, and Orchid Ruffles.

A flying trip to Oklahoma City—this is outside our region, I know—showed beauties in the garden of Helen McCaughey. Here it was I saw the loveliest, to me, flower of this season, Fay's seedling No. 50-22, a

ruffled yellow and white darling standing proud and strong in the face of a stiff Oklahoma wind.

One of the newest and most interesting things taking place in the Iris Society of Dallas is a newly instituted judging course dreamed up by our President, Paul Horton. Each member has equipped himself with the booklet on Judging Iris published by the AIS, and the plan is to visit iris gardens en masse, judge flowers in bloom there according to the official score sheet, each one individually; then to compare total scores with that of an officially accredited iris judge. Thus we expect to learn what it is that judges look for in an iris—the beauty and stamina of bloom, sturdiness of stalk, floriferousness, behavior, growing pattern, etc. This should make for more authoritative knowledge of each type grown, as well as for better cultural practices. Don't you like the idea?

The following is a detailed account from the Z. G. Benson Gardens: Wichita Falls, Texas.

Annette (Hall), deep rose self with bright red beard, flaring falls with plenty of substance, real nice.

Black Taffeta (Songer), just about as black as they come, and holds the color in hot sun.

Black Mischief (Schreiner), a good black with three flowers open at once, very nice.

Cliffs of Dover (Fay), a real good white, that grows well and has lots of bloom.

Front Gate (Rogers), the most outstanding white in our garden, it will call you back for several looks.

First Violet (DeForest), a nice violet that blooms over a long period, Dykes 1956.

Frilly Fringes (Bro. Charles), a cream with plenty of lacing that is extra nice.

Frances Craig (Craig), lavender-blue, a good performer, blooming with the first and last, fast to increase, very nice.

Grecian Urn (Sapp), this is one for Mrs. Sapp to be proud of; it just keeps on blooming.

Inca Chief (Mitch), the best brown for us this year.

Lady Rogers (Rogers), queen of the blues, to see it as grown in the Rogers' garden last year and this, it will steal your heart away.

Lula Marguerite (DeForest), blue blend with gold edging, something different.

Lynn Hall (Hall), I think that this is one of Mr. Hall's best pinks, lovely.

Patience (Schortman), a beautiful flower, rose magenta in coloring, large and smooth on a strong stalk.

Regina Maria (Hinkle), medium blue in color, has everything, in a class alone, a good performer with lots of bloom.

Senorita Ilsa (Rogers), tall white, good branching with nice flower.

Snow Goddess (Becherer), a good white that blooms early to mid-season, on strong well-branched stalks, very nice.

Sable Night (Cook), black from the red side, with dark beard tipped brown, does real well here.

Violet Harmony (Lowry), Dykes in '57, and well deserved the honor, best in its color class, violet with lighter flush at haft, extra nice.

Violet Grace (Wadland), aster-violet self from Canada, that is doing well in Texas.

Violet Hills (DeForest), smooth deep violet self, much better than First Violet here, also darker.

Wayward Wind (Baker), described as antique gold self, but I would call it a buckskin brown overlaid plum, but it does not matter what you call the color, it will stop you when you come to it, the nicest iris to bloom in our garden this season.

IRIS GARDENS IN MICHIGAN

IRENE LIPIEC, Warren, Mich.

You hear of gardens in different states, but very little of Michigan. I would like to tell you of a few which I know quite well.

In Farmington, Michigan is a lovely, gay, red-haired lady, who has the most wonderful selection of iris I've seen in a long time. Who? Mrs. Van Slyke, of course! Some of you may know her and her introduction (Curtis A.) a lovely pink iris which she had named after her grandson.

In the past five years I have learned to love and admire Mrs. Van Slyke. She has taught me almost everything I know about iris. If you are in the neighborhood at five o'clock in the morning, you would see this tiny lady hard at work among the flowers she loves. Looking for something different in iris? She has a selection which is sure to please.

Next, there are the Nan Carrow Gardens in Birmingham, Michigan. Here too is a beautiful, poised lady and her wonderful husband. The garden has a very beautiful, cool, serene setting, among many lovely trees and shrubs. Gladys has many good varieties. The garden is her pride and joy; great pains are taken to keep it clean and well-cared for.

Then we come to a fairly new garden in Birmingham. The owner is another wonderful redhead, a nurse by profession, Mrs. C. Veers. I know that with all the work and effort she is putting into her garden, we will hear a lot about it in the near future.

Last, I must tell you of my own garden, Rare Iris Gardens in Warren, Michigan. I have about eight hundred varieties of good iris. Colored walks (made by my husband), up-raised formal beds, and a beautiful grotto with a statue of the Blessed Virgin within its walls, beautify the landscape. I love to have people come and visit me and talk of my favorite flower, the iris. Everyone is welcome to see my iris display.

I know we have many, more beautiful iris gardens in Michigan. So if any of you are up this way please come and visit with us.

CARCO-X FOR SOFT ROT



One treatment dries up Soft Rot over night. But why wait until Soft Rot attacks your rhizomes? Use Carco-X and prevent Soft Rot. Clean up your iris garden early in spring. Remove dead leaves and drench iris clumps with the solution, saturating the soil surrounding the rhizomes. It costs so little to keep your iris healthy. One quart of Carco-X liquid makes 50 gallons of solution. Easy to mix and easy to use.



POST PAID PRICES IN U.S.A.

1/2 Pint \$1.65

1 Quart \$3.50

1 Pint \$2.25

1 Gallon \$9.90

Gable Iris Gardens

2543 38th Avenue, South

Minneapolis 6, Minn.

HAMBLEN 1958 INTRODUCTIONS

ENCHANTED VIOLET (Helen McGregor x Radiation) X (Palomino) Light violet with a flash of pink and orchid in the center of the falls and a bright reddish-tangerine beard. H.C. 1957 \$20.00

VALIMAR (Sister to Enchanted Violet and Gay Adventure) Smooth apricot-pink self with a wide nasturtion-red beard. H.C. 1957. \$20.00

FORMERLY INTRODUCED

BLUE CLIF (Snow Flurry x Chivalry) Campanula violet self with a silvery, lobelia blue area near the hafts. \$10.00

GAY ADVENTURE—Wide, flaring blue-violet self with a lemon beard. Substance—like that of its sisters—is exceptionally heavy. \$15.00

GLITTERING AMBER (Palomino X Sister to June Meredith) Glittering, tangerine-bearded apricot-amber with lace. H.M. 1957. \$25.00

MISSION STARLITE (Chivalry X White Wedgewood) Silvery French blue with rich violet veining at the haft. Blue-tipped beard. H.M. 1956. \$10.00

RUFFLED STARLITE (Sister to Mission Starlite) Wide, ruffled French blue self with blue-tipped beard. H.M. 1957. \$ 5.00

MISSION BELL GARDENS

CATALOG ON REQUEST

2778 WEST 5600 SOUTH, ROY, UTAH

BUTTERFLY (SPURIA) IRIS

ARIZONA MISSION GARDENS, P.O. Box 68, Somerton, Arizona. Originations of Dr. Philip Corliss. (No catalog). Subject to stock.

BLUE CORSAGE ruffled flaring giant; PHARAOH blue with brown patch; DOROTHY WARENSKJOLD gray-brown, earliest; VIOLA BRAY gray-brown, curly; BLUE MIRANDY, large dark blue; MARIE HUNTER plum, majestic; WHITE BRANCH, top white; GREY BUTTERFLY pastel, long branches.

(All above are \$25.00 each)

GOLD BEACON intense gold, early; GOLDEN BRANCH, midseason; SILVER BUTTERFLY tall, late, yellow bicolor.

(All above are \$20.00 each)

(See also catalogs of Fairmount Gardens and Court of Iris)

Seedlings: 3 for \$2.50. Specify color choice: White, Yellow, Blue, Bronze, Mixed. ALL RHIZOMES SHIPPED EARLY AUGUST ONLY.

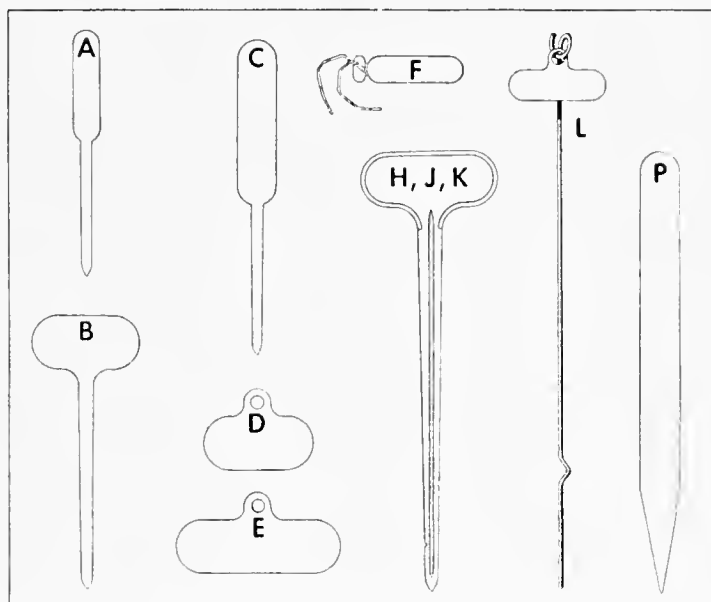
Seeds: (Available all year) \$1. per packet. 5 Choice OR 10 select OR 20 Good.

Awarded Exhibition Certificates at Phoenix, Arizona Show, 1958:

BRONZE CORSAGE, HEART OF BLUE, PHARAOH, WHITE BRANCH, AND GOLD BEACON

Lifetime Plastic Plant Markers

Here is a PLANT MARKER that we can recommend to all IRIS GROWERS. Permanent, will not rot, easy to read, easy to write on with ordinary soft lead pencil and it remains clear and plain even if covered with soil over winter. We have made the test and we know this to be true. The writing can be removed with scouring powder



and the label can be used over and over. Remains neat and clean and requires no painting. One of the things we like best is the saving in time required to prepare labels at planting time.

The tie-on tags are popular with those who wish to fashion their own steel stakes from heavy wire. They are most satisfactory and economical for hybridizing records as the writing always remains readable and the tags can be cleaned and used year after year.

We have added two new stakes this year: Style K for labeling display gardens and Style P for marking rows of nursery stock.

PLANT MARKERS MAKE WELCOME GIFTS FOR GARDENER FRIENDS POST PAID PRICES

	25	50	100	500
A—4½" Vertical Pot Stake		\$.75	\$ 1.25	\$ 5.50
B—2" x 5" Border Stake		2.00	2.75	11.00
C—6" Vertical Stake		1.50	2.25	10.00
D—2" Tie-on Tag		1.35	2.00	9.00
E—3" Tie-on Tag		1.60	2.40	10.50
F—2" Notched Tag75	1.25	5.00
H—2½" x 8" Tee Stake	\$1.75	3.00	5.00	21.00
J—3" x 12" Tee Stake	3.00	5.40	9.00	37.50
K—4½" x 18" Tee Stake	4.50	8.00	15.00	67.50
L—18" Galvanized Spring Steel Stake	2.00	4.00	7.00	30.00
P—1" x 12" Vertical Stake	2.25	4.00	7.00	26.00

Sample Assortment: 10 each of A, C, D, F and 5 each of B and H for \$1.00

Special Assortment: 1 each of E, H, J, K, L and P for \$.50.

Note: Price of steel stake does not include tag. Copper wires supplied with all tags.

Dealers and Garden Clubs write for Wholesale Prices

Gable Iris Gardens

2543 38th Avenue South, Minneapolis 6, Minnesota

IRIS • PEONY • DAYLILY CATALOG FREE ON REQUEST

The Western Natives Open Southern California's Season

ROY OLIPHANT, Berkeley, Calif.

The hybridizing of *Iris douglasiana* and *innominata* (D-Is) has reached that most happy point at which new developments are "bustin' out" all over. No wonder then that a group of us in northern California had long planned a trek to the southern part of the state (the hottest kind of hot bed of D-I hybridizing) to see what our southern cousins were up to.

Long before "D" day it started to RAIN. It rained until only the memory of the oldest settler was equal to recalling a wetter year. Mountains moved; roads became rivers, and humor had it that sea monsters had been seen swimming merrily in the lakes caused by damming the Coast Highway. Our numbers were literally "washed away" until only five of the most foolhardy (Peg Dabagh, Ben Wrighton, Jack Craig, Elwood Molseed, and I) were left when departure day arrived. Providence has long been noted for taking care of such as we, however, and Friday morning, April 4, 1958, found us relatively dry in Ventura, awaiting the earliest possible moment when we could descend upon the Walker Ranch.

Unbelievably, it had stopped raining (well, almost). Marion and Dorothy Walker, good sports that they were, showed us around their plantings with scarcely a reference to the damage that rain and hail had done. Fortunately, enough older blooms had survived and enough new ones had opened to give us some faint idea of the very real advances (in size of flower and in colors, in taller and stiffer stems) that Marion had achieved.

All who saw Marion's D-I seedlings during the Los Angeles annual meeting will remember their crowd-stopping beauty. The reciting of long lists of numbers is about as fruitless an occupation as one could find, but I believe that many visitors the day of the convention visit must have made a record of some of the seedlings. These people will welcome the news that Mildred Lyons plans to introduce the following numbered seedlings next year: D-6-56, D-7-56 (received H C), D-9-56, D-10-56, and D-11-56 (received H C). These were all to be seen at Marion's during the annual meeting.

From Ventura, we went inland to La Canada, to the home of Polly and Ken. Anderson, our hosts for the rest of our stay. Polly had "gone all out" to make sure our visit would be a pleasant one and accompanied us Saturday (believe it or not—it was warm and sunny—Polly was a most successful arranger) to Rancho Santa Ana Botanic Gardens in Claremont.

Dr. Lee Lenz's work has to be seen to be believed. Here is the place to see the shape of things to come, and a trip to the Gardens is a must for all who are interested in these iris. Dr. Lenz has added *Iris munzii*

and *bracteata* to his *douglasiana-innominata* breeding program, with remarkable results. *I. munzii* itself is a large coarse plant, very vigorous but tender, with flowers of poor form, but in its best color selections, of real and very lovely blue. To the hybrids it imparts vigor and blue color. *I. bracteata* does not do well at Claremont, but it has flower stems of good height, and the flowers themselves are of magnificent size. *Bracteata* adds very large-flowered yellows and browns to the F-1 hybrids.

In his work with the Californian group of iris, Dr. Lenz aims at plants 12 to 18 inches high with the flowers on strong, erect stems, well above the foliage. The standards and falls should be broad (not "starry" in form), and the falls should be horizontal to show the flower off to best advantage. Working along these lines, Dr. Lenz has created remarkable series of creams, yellows, browns, reds, and blues (plus blends and bicolors); the best of which have very large flowers (one member thought some of the flowers a little too large), many ruffled, the falls often horizontal; the stems erect, branched, and sturdy and well above the foliage. One plant signalled a departure in form, of flower. The flower was of tremendous size with broad, horizontal falls and very short, broad standards (the standards pale lavender and the falls plum with a white blaze). The whole effect was very much that of a Japanese iris.

Seedlings Show Distinct Improvement

Each year's crosses showed distinct improvement, and, with one exception, Dr. Lenz did not seem too interested in introducing any at the present time. That exception was a large blue *munzii* x *douglasiana* hybrid which has been named Memoria Allen Chickering and will be introduced.

Frances Combs, of Whittier, is the introducer of Dick and Helen Luhrsen's *douglasiana-innominata* hybrids and when we arrived at her place that afternoon, Dick Luhrsen was there with a fine display of their newest seedlings. The flowers were lovely, graceful things in varied colors and combinations of colors. Many were ruffled.

The Luhrsens use *douglasiana* to give size and robustness and *innominata* to give fine colors, better form, and compact habit. Large, heavy-substanced bloom is aimed for, and hardiness is stressed. These two hybridizers have already introduced several fine hybrids (Ruffled Princess, Sundown, Yosemite, etc.) through Frances, and some of these new ones will also be introduced—just which ones have not yet been decided, except that a red hybrid which won the Ben Hager Award at the Southern California Iris Society Show will be included.

Frances has a most interesting garden and there are many things to see (her Easter decoration was particularly well-received) besides iris, including a collection of old roses.

We regretted, indeed, that we did not get to see Dr. Roswell Johnson (he, too, gave freely of his time to make our trip a success). He plans

to introduce California Stalwart next season through Frances Combs. This iris I have not seen, but Dr. Johnson is also working for larger, broader-petalled flowers with less recumbent stems. I know that his plants of two years back were very pleasing.

Easter Sunday we took reluctant leave of the Andersons and, accompanied by intermittent rains (the car floated only twice), made our way back to San Francisco. We were royally treated, saw almost more than we could take in, and are all firmly convinced that the day of the D-I hybrid has arrived.

This chronicle would not be complete (perhaps it is already too complete) without recording that one Region 14 hybridist, Mary Ellen Knopf, has introduced a D-I hybrid, Woodmont Rose, this year. I am sorry to say that I have not yet seen it.

The older hybrids; Amiguita, Santa Ana, Pacific Startler, etc., are very fine things and will not soon be superseded, but improvements are coming along apace.

The two most pressing problems which plague the D-I hybridizer are the development of reliably hardy varieties and how best to handle and ship the plants. The use of *Irises douglasiana* and *munzii* does not promote plants of cast iron hardiness in regions of severe winter cold. Selection for hardiness and, perhaps, the inclusion of hardier members of the California group in the breeding program should help.

The merchandising problem has been aided by the use of plastic bags, but plans (beyond the seedling stage) must still be handled only after the new roots have commenced to form in the fall or winter. A form of Plant Band is being used in Australia for shipping these irises in soil, and perhaps this will be the answer.

These problems must and will be solved, for there are no more lovely flowers than the D-I hybrids. Fortunately, they are too different to compete with the Tall Bearded, and are well worth a place of their own in the garden.

No Ostrich Here

Leaf spot, cut-worms, floods and freezes,
Aphids, borers, forty-mile breezes,
Nematodes, dry-rot, mustard seed too,
Could name dozens more and not be through;
The list of things that plague my planting.
They can't be cured by raving and ranting,
But a check can help get rid of these
So send mine on to "Research," please!

—GEORGIA HINKLE, Marion, Ill.

Whence the Apricots

EDWIN RUNDLETT, N.Y.

If you are one of the many who engage in pollen daubing just for the fun of it, don't be frightened by the complexity of the accompanying chart. This resulted merely from an attempt to present as much information as possible to the glance of the reader. To have presented all this in the customary manner would have taken a dozen pages.

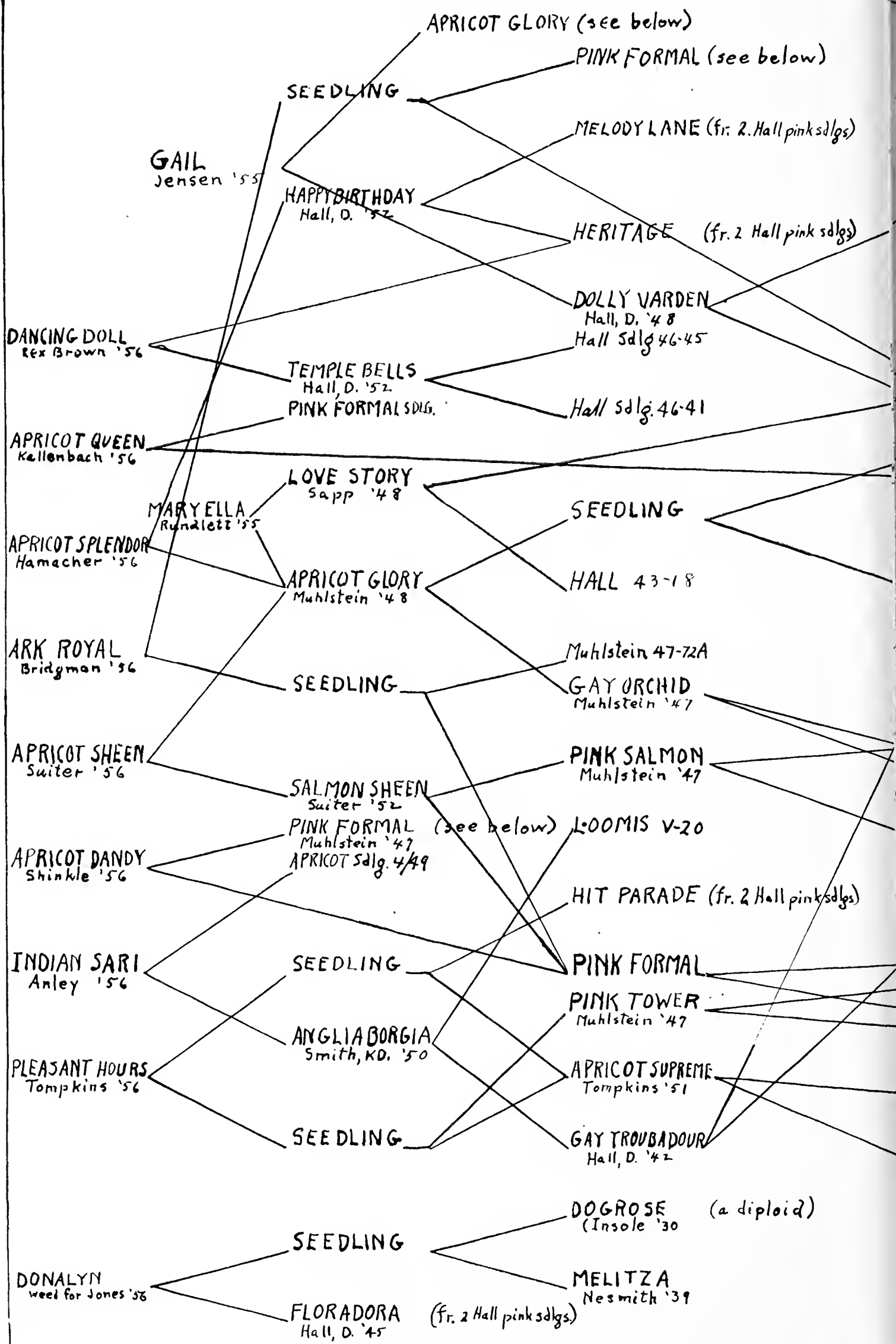
Breeding irises is simplicity itself. Even a child can do it and have a good chance of producing an occasional seedling of outstanding beauty. But the beginner is bewildered by the multitude of Tall Bearded iris varieties available for use as parents. These are about as prolific as pigeons, and as varied in color patterns. The problem, then, is to set fitting goals and then to find ways of reaching them.

For my introduction to the fascinating game of breeding iris, I am indebted to a fellow Staten Islander, Kenneth D. Smith, who is known to many of you by his writings in this Bulletin and by his famous iris introductions. My start was made at about the time David Hall's flamingo pink irises astonished and delighted the American public. By persistent breeding toward one goal, selecting the best, and discarding all others, Mr. Hall still leads the breeding race in the field of pink iris. But he is no longer alone. Others are producing outstanding varieties. Nobody need be discouraged.

The surest way for an iris breeder to reach a higher goal, is to stand upon the shoulders of others. This I will help you to do. The title of this article might well have been, "Whence the Pinks," since the apricot irises were in truth derived from the pinks. I know of no exception. For a decade or so I firmly resisted the urge to grow pink irises. Their tissue paper substance did not appeal to me. When rainy weather did not make pulp of them, hot sun did. Now the story is changed. Thanks to great efforts of a host of breeders, fine pinks of heavier substance have emerged. So the shoulder-climbing began, and I'm stretching for higher goals. Good pink irises are now legion, yet their apricot derivatives are quite scarce. Bringing them to perfection is worth our best efforts.

By apricot irises is meant those that have a color which is a general representation of the skin and inside of the ripe fruit of apricots. My goal is number 609-1 of the Wilson Color Charts. Number 609-2 is a bit lighter and also good. Number 609 is slightly darker, and may be preferred by many. All are beautiful, and have great garden value, as well as many indoor uses. They contrast beautifully with blue flowers, and harmonize with red, pink, and brown.

Heavy, waxy substance is a prime requisite. That there are a few good ones is quite encouraging. Various markings and intrusions of pink could bring to the iris world what the Peace rose brought to the world of roses. The variety, Mary Randall, is the sort of variation meant, yet



this is not apricot. The by-products of iris breeding are often as exciting as the goals themselves.

Now let us consider the pedigree chart. Listed on the left are nine of the eleven apricot varieties registered in 1956 by the American Iris Society. By studying their pedigrees, it is possible for you to stand upon the shoulders of these "look-forward" breeders. There is no need to start from scratch.

In fairness to the originators of the two other varieties of apricot iris squeezed out of the chart by lack of space, mention of them will be made here. Luann Kay, by Tuller, is ((Carlsbad Caverns x Dolly Wacker) X (Floradora)) X Top Flight. Hall's Floradora and his Top Flight have been used elsewhere in breeding for better apricot irises.

Viki, by Weyland, is Muhlestein's Party Dress X David Hall's Rosedale. The latter is from a Chantilly-Fantasy cross. The former includes a sister to Muhlestein's heavy-substanced Pink Formal.

Having said that we should stand upon the shoulders of others, it might seem that I advocate buying for breeding purposes only the latest introductions. Some are doing this with good results, but I do not believe in it. Neither do I feel that the beginner should ignore all recent progress and use only sorts popular a decade ago. There is a happy middle ground which is productive of good results, but which is easy on the pocket-book. Do what the cattle breeders have learned to do. Use as parents individuals that have proven capable of producing superior offspring, even if they themselves are not show animals.

This seems so important that an example will be given. Whiting's Nylon can be had for fifty cents. Find it on the chart. It has in its near ancestry just about all one could wish, and it is a grandparent of Apricot Glory which is now in the low price class. Apricot Glory is a parent of Gail, Mary Ella, Apricot Splendor, and Apricot Sheen.

A few words must be said in explanation of the arrangement of the varieties on the chart. Following the usual custom, the pod or female parent is always placed at the top and the pollen parent below. As some sorts have been used both as pod and as pollen parents, there are a few instances in which it was necessary to repeat the same name in two or three places on the chart. Pink Formal is an example. Elsewhere repetitions have been made to untangle the network of lines. Golden Eagle is one of these.

To save space and clarify the network, the older varieties were closely bunched in an orderly manner in the upper right corner of the chart, thus making it easier for the reader to read the more useful parts of the chart. The two types of charting are linked by lines bearing arrow heads at their ends. The name nearest the arrow head is the variety indicated as parent. Thus the pod parent of Nylon is Amitola, and that of Coronet is Rameses. Beneath each variety name is given the name of the originator and the year of registry.

In the lower left side of the chart will be found an interesting cross

by Mrs. Shinkle. Pink Formal x Pink Formal gave her, Apricot Dandy. This selfing of a variety known to be a promising parent is an excellent practice. It gives in a short time and at low expense a large number of seedlings from which to select superior offspring for introduction or for further breeding.

In rating Pink Formal as a parent it would be well to link with it its sister seedling, Pink Tower. The two together have done much to improve the race.

In the extreme lower left corner is a new apricot iris that is also of special interest because of the unusual breeding: Donalyn, by Jones, registered by Mrs. Weed. The pod parent was a seedling of a cross between the diploid iris, Dogrose, and Mrs. Nesmith's pink Melitza, both very old sorts. It seems probable that in this cross the number of chromosomes from Dogrose was doubled. This may prove important, for the doubling of chromosomes makes possible the expression of characters that otherwise would be unlikely. Melitza has 47 chromosomes and Dogrose 24.

While on the subject, it might be well to digress a bit to point out other instances in which doubling of chromosomes evidently took place. The origin of the pinks might be thus explained, but I'll leave that for the geneticists to confirm. In producing Rose Madder, the diploid, Hector seems to have doubled. Old Gold, a diploid, crossed with the tetraploid, *I. trojana* gave the seedling that gave Sandalwood, a tetraploid. Midgard (24) x Rameses (48) gave Amitola (48) which is behind a host of pinks and apricots. Back of Mrs. Bellmer's Apricot Belle, to be mentioned later, we find Mary Rich Lyon, a modern Tall Bearded that came from Pluie d'Or (24) x Purissima (47). This is food for thought.

The American Iris Society registry list for 1957 came to hand after the chart was prepared. It seems fitting to add here a list of apricot irises registered that year, to still further enrich our information. Evidently others are becoming enthused by this color. Here they are:

Apricot Belle (Bellmer)—Betty Jane x #48x1 (New Horizon x Pink Formal). I have seen this one and know it is excellent.

Apricot Dancer (Noyd)—June Bride x Temple Bells.

Apricot Dream (Noyd)—(((Reveille x New Horizon) X (Apricot Glory)) X Temple Bells).

Apricot Elegance (Neel)—((Pink Cameo x Hi Time) X Golden Eagle).

Apricot Flare (Suiter)—((Midwest Gem x Daybreak) X Salmon Sheen).

Apricot Princess (Quadros)—((Casa Morena x Golden Russet) X Mary Randall).

Cotlet (Noyd)—((Reveille x New Horizon) X (Apricot Glory X Temple Bells)).

Country Cuzzin (Brown-Opal)—((Hit Parade x Pink Formal) X (Mary Randall)) X Palomino.

Dixie Peach (Gaulter)—Memories x Mary Randall.

Flamingo Beard (Noyd)—((Buffawn x Pink Sdlg.) X New Horizon)
X Salmon Shell.

Glorietta (Murray)—(Jasper Agate x Nightingale) X (Apricot Glory x
Melody Lane).

Gorgeous Jorie (DeForest)—Sdlg. #51-4-B x Lapham C-7.

Late Apricot (Muhlestein)—Party Dress x Pink Fulfilment.

Magnet (Nelson, J.)—Apricot Glory x Palomino.

Warm Welcome (Branch)—(Pink Tower x Pink Formal) X June Bride.

Pollen daubers and others particularly interested in this beautiful color in iris, will want to know where they can obtain the varieties listed. Not all in the above list or on the left border of the chart have been introduced to the market. The only way you can find out is to either watch catalogs, particularly those advertised in this Bulletin, or to write to the originators. In recent years all registrations have been published in the April issue of the Bulletin. This year it was in a supplement mailed at the same time. On the pages just before the registries will be found the addresses of the originators, and the names of the irises registered by them. For registries of the years 1950, 1951, and 1952 the Society issued a reprint of the Bulletin registries, which may be bought from the Secretary. The book-size Check List dated 1949 contains similar data for the decade prior to this. Then, of course, there is the 1939 Check List covering all earlier registrations. These are all helpful to the more studious daubers. But a great deal of fun can be had without getting at original sources—by climbing the shoulders of those who have done so.

And those shoulders belong to real people who are fine people to know. These almost invariably are members of round robins conducted among American Iris Society members under the leadership of John A. Bartholomew, 35 Pine Grove St., Milton 86, Mass. By taking part in these correspondence circles, new knowledge about iris and sources of iris whizzes back and forth across this country sputnik-fashion. Climb aboard and have fun.

RANDOLPH IRIS GARDEN

118 SHELDON ROAD, ITHACA, NEW YORK

EXOTIC BLUE

\$15.00

Lavender blue tinged with greenish brown, having a heavy matching beard which accentuates its exotic charm. 32". H.C. 1957. Runner-up for the President's Cup at the 1958 Annual Meeting.

BLACK AND BLUE

\$5.00

A sprightly Border Iris with deep velvety purple falls and bright blue standards. 20".

BRIGHT HALO

\$7.50

A luminous deep yellow center suggested the name for this unusual combination of creamy standards and near-white falls. 30".

MORNING SUNLIGHT

\$5.00

A brilliant glowing, deep yellow. Sturdy, vigorous, and free blooming. 34".

THE OH'S AND AH'S BEGINNING THE 1958 SEASON

JENNIE L. HOPSON, San Gabriel, Calif.

Oncobred peak here in Southern California was April 13 with the Aril Society International Spring Meeting.

Imam Salah is an early, bold but soft, yellow with very dark signal. It grows well and is fertile.

Jabal Kerak's greenish color attracts all. It is a dainty, tightly formed flower on 14- to 16-inch stems.

Kalifa Gulnare is admired and desired by many. Few plants make such a massive clump of lavender and deep rose and with such prolific bloom.

Kalifa Baltis attracts everyone with its striking yellow tones and dark signal. It's a real show.

The novel, blue and yellow border design and color of Saffron Charm make it a real attraction among the smaller iris.

No little iris beats the charming Moonchild, with its perky form and lovely blue-gray color with a dark signal.

Seeing is believing the crisp turquoise and lavender veining on Luihn's gorgeous light blue Mohrning Haze; a large perfectly formed flower bloomed on a first year plant.

Two weeks later the Regional Trek of San Gabriel and San Fernando Valley brought these recent ones out in front to begin the season:

Brother Charles' 51-33 was a near-perfect clump of lavender-orchid crimped flowers on well-proportioned stalks. Good color remained in the old and new flowers, accented by the cream yellow beard.

Amethyst Star, a Louisiana iris by Sidney DuBose, is a "must," with charming stature and lovely self-color in soft orchid, and yellow center.

Woodland Sprite is for the fancier of green iris. With a blue beard adding harmony, it has a well-balanced flower and stalk.

Glittering Gold displayed better form, substance, and stalk than Gold Cup in this area.

Orchid Queen was a large, soft lavender-white blend in true Schortman ruffles and form. It is recommended for breeding.

Changing Tide has a similar green-bluish effect as that in Winged Goddess, nicely formed flowers and stalk.

In our garden 386-56-Tg ((Bali Belle x Green Pastures) X Green Hat), a large horizontally formed white with greenish shoulders amazed the guests and pleased the host and hostess.

WANTED—AIS Bulletins April 1955—#137, January 1957—#144
I shall gladly pay \$1.00 each for these two issues.

Mrs. Clinton L. Jennings
211 Griffen Avenue
Scarsdale, New York

Some Southern California Stars

LILLIAN AND COLLIE TERRELL, Wasco, Calif.

Among the newer introductions which we think are outstanding here in Southern California, and which do well in our garden in the heat of the lower San Joaquin Valley:

Marion Marlow is white with closed standards, nice falls with waves and ruffles, good substance, large bloom and holds up three to four days in our heat. It takes the rain and winds, increases well, and stands forty inches tall—a beautiful thing.

Swan Ballet is a white with closed standards, flaring falls, the whole flower is ruffled, good substance, nice sized blooms; it increases well and takes our heat, winds, and rain; forty inches high; and although the spacing of the blooms is not too good for us, it holds up for three to four days in our heat.

Flirtation is a deep pink self with a red beard. One of the cleanest blooms, standards are closed, and falls have a nice flare to them; good substance but not heavy; a smooth bloom, doesn't fade in our heat, takes the wind and rain, thirty-six inches high.

Pink Fulfillment is a nice pink with large blooms, standards are closed, wide falls and flaring, good substance. It takes our heat well, also the winds and rain; a little slow of increase here.

June Meredith is a clean pink with good substance, lovely form, takes our weather, but it's a slow increaser for us; it will have four to five bloom stalks each season.

Techny Chimes is a light yellow with closed standards, wide falls and ruffled, good substance; takes our heat, winds and rain, a nice bloom on thirty-eight-inch stalks.

Joan Crawford is a silvery blue, the falls flare and ripple; it's a good increaser, takes the heat, winds, and rains.

Night Patrol is a deep violet blue with matching beard, horizontal falls, a medium-sized bloom which takes our weather without fading; it blooms short for us, twenty-seven to twenty-eight inches.

Taholah is one of the nicest plicatas; does well here.

The following varieties are reported from first year plants and were the first to bloom this year:

Late Apricot is a nice, well-formed bloom, smooth and good clean color more on the peach-pink than apricot, nice bloom which was very pretty for us.

Golden Garland was thirty-four inches on a first-year plant, with golden yellow standards and pure cream falls edged gold; a nice clean bloom, pleasing to the eye.

Encounter has yellow standards; the falls are white with a border the color of the standards, and clean flowers.

Lynn Hall is a pink self of dainty color with good substance and takes our heat well.

Some of the older iris that are outstanding and perform extra well in our garden are: South Pacific, a broad flaring blue, good form, which likes our climate; Big Game; Ruffled Taffeta; Violet Harmony; Cliffs of Dover; Norwood; Nomohr; Evening Star which is a nice lemon cream with flaring waved falls; Starlift which does well in all weather and is a very ruffled blue; Queen's Lace, a nice lacy bloom that can take our heat, rain, and winds and still look good; it has good substance and grows twenty-nine to thirty inches here; and Queen's Taste, which does really well for us, is tall and stately and increases well.

Northern California Comments

MRS. AL NAHAS, Sacramento, Calif.

Iris demand attention with their exotic forms and iridescent colors. Among the newer creations, here are a few that have attracted considerable alertness due to their advanced fine qualities. To make these comments more authentic, I indulged in a bit of eavesdropping while touring gardens. The majority of viewers had the same judgment and impression as mine on how these irises performed here in the West.

A visit in the early season was made to the Rainbow Hybridizing Gardens, nestled among giant trees lending an air of comfort and serene beauty. I saw many of Mr. Lloyd Austin's 1958 introductions in full bloom. Bagdad Beauty has lilac-veined silvery standards and bronzy falls, and Judean Cream is a pure cream color with a brown spot below the beard. These are entirely new creations in the true Arils, and you can expect many superb and different ones to come, such as real black ones, yellow bitones, and white standards with black-dotted falls.

Mr. William Schortman of Porterville, California, has another exquisite introduction out this year called Polka Time. It is ruffled violet-blue with a bit of white at the haft, well-formed and of excellent substance, standing about thirty-five inches. This man has an "in" with hybridizing as his Indiglow, scheduled for 1959, also in the violet-blue shades, took the Region 14 Seedling Cup during the regional meeting in May.

Among 1958 introductions, Forward Look (George Murray) is outstanding. The cream standards are closed and the golden brown falls are horizontal. It is on the order of Rocket but much more advanced, lots of substance and fine branching.

Another glamorous one for this year is Enchanted Violet, a joy by Melba Hamblen. Attractive large blossoms, closed standards, flaring falls, both ruffled, make it outstanding. It sparkles in light violet with a pink spot in the center of the falls and has a tangerine beard.

The greens have been improved this year by Roy Davidson with his Nona. The perfection of the tailored flower is enhanced by a distinct yellow-green tint. Domed standards and flaring falls have a silken sheen, which is indeed an accomplishment. Another perfectly stunning green is Winged Goddess by Mildred Lyons (1956). The difference between the two is that this flower has an overcast of pale blue beneath a blue

beard, and is slightly ruffled. Hot Mustard (J. Nelson 1957) is still another green in mustard yellow with an orange beard and with choice form.

It may be that Schreiners' Olympic Torch (1958) will be just as popular as their Fortune's Gift, although not as dark. It is forty inches tall with cupped standards, flaring falls on a well-branched stalk in the colors of golden-bronze.

Frost and Flame (Hall 1957) is the best I've seen in the whites with a flaming or tangerine beard. Most of these have little substance; however, I have not seen Lipstick by Fay. Clara Rees had a beautiful planting of Frost and Flame during the Region 14 convention.

A jewel that has been overlooked is Fred Crandall's Golden Stairs. Although a little tall, it is something praiseworthy, in smooth yellow with a small white area under the beard, excellent branching, and very prolific. One has to see his 1958 creation Speckled Bird (Onco hybrid) to appreciate this purple self with plicata marks over the entire flower.

Plicatas are among my favorites in the garden, and Jim Gibson's (1958) Copper Halo is a real eye-catcher. The ruffled flower has a creamy white background covered with a stitching of rosy copper. This is different from his Taholah.

Another exotic and regal plicata is Bloomin' Love (J. Wells 1956) with a pinkish cream ground delicately stippled with a deep rose border around falls, very floriferous on a well-branched forty-inch stalk. It is difficult to explain how exquisite and different this pattern is.

To find large well-formed flowers, as well as purity of color, is a task; and in this respect Aristocrat (1957), another fine iris by Clara Rees, is difficult to excel. It is a brilliant cream with light yellow at the haft, and stunning in the garden.

Of all Gordon Plough's heavily laced introductions, Butterscotch Kiss is most popular. It grows well everywhere and is very exciting in all gardens. The name implies the color, heavy substance, and good branching. To me, however, his Alice Lemen is just as superb and possesses the same good qualities.

A commanding rich black with exceptional substance is Raven Country (Muhlestein 1957). Although it may be a bit temperamental, it has not been so in several of the gardens here in the Sacramento Valley.

Chinese Lantern (Fay 1957) is a large and vigorous smooth deep yellow. I don't believe, however, the beard is quite as tangerine as Techny Chimes, but the form and clarity of color are fine.

Horizontal falls, immense flowers, and unique coloring are found in Kentucky Colonel (George Stambach 1957). The broad-petaled medium blue blossom with light tan shoulders has an accent of veining at the haft which is becoming.

Larry Gaulter has a commanding new white, Fleur de Blanc, which is very ruffled on the order of its parent, Swan Ballet, but with much improved branching. Another new white this year and a real exhibition variety, is Arctic Queen by Midge Awalt. Usually three blooms will open

at the same time on well-branched stalks without any crowding.

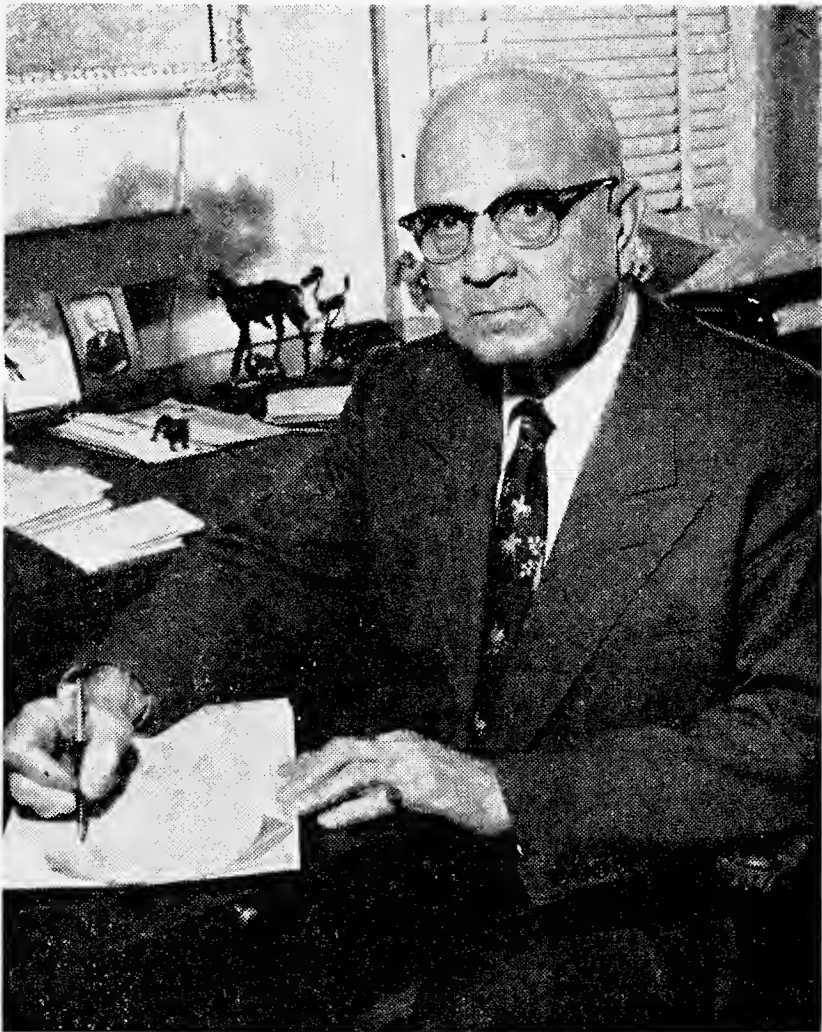
Everyone should take advantage of the scientific progress in hybridizing today and compare the newer introductions with the older varieties. It is not easy in a few cases, as some of the old timers had a flush of glory and are still putting on a real display. But with such a large number of new things coming out each year surely all the old favorites will be succeeded through accomplishments in good breeding.

1959 CONVENTION
CHAIRMAN

On November 1, 1957, Mr. Floyd Cassady was elected president of the Oklahoma City Iris Society. The Oklahoma Iris Society will serve as hosts for the 1959 iris convention to be held in Oklahoma City.

Mr. Cassady is a real iris enthusiast and serves as the western manager for the Gamon Meter Division of the Worthington Corp.

Mr. Cassady has big plans for the 1959 convention and invites all members of the AIS to be present.



1957 INTRODUCTIONS

LEMON FLUFF (Chantilly x 46-2F: (Hall 42-10 x SQ 72))
x (Gold Ruffles x Chantilly)

If you like lacy iris, you'll love LEMON FLUFF. Lacy domed standards are Reed Yellow (M&P). Oyster white falls heavily laced Chrome Yellow (M&P). Clean two-inch wide haft enhanced by orange-yellow beard. All these attributes, plus heavy substance and good branching make this a MUST for connoisseurs of fine iris. Proven parent for "lacy" seedlings. Midseason—36".....Net \$12.00

SALEM LASS (Wish Again x Pretty Pansy)

As pert and trim as a Quaker Lass. Deep red-violet self (Loganberry, M&P). Thin white edging around both standards and falls. Clean white area around lemon-yellow beard enhances the beauty of this flower. Domed, closed standards and semi-flaring falls. Excellent form and substance. Good branching. Midseason—36".....\$7.50

COMBINATION PRICE (one each of above) \$17.50

SALEM HILLS IRIS GARDEN • 1605 Salem Hills Drive • Rock Hill 19, Mo.
MARVIN G. OLSON, Hybridizer

Tapped for Top Honors

ROY OLIPHANT, Berkeley, Calif.

There are many fine blue irises, but I believe that *Sierra Skies* is tops in this class. It has great garden value and a blueness of flower that brings out the lavender in others. In all ways it leaves little to be desired.

Melba Hamblen's Mission Starlite I saw for the first time this year and wished that I had not been so late in discovering it. A very appealing soft blue of fine form, it will bring you back to look again.

Polka Time, from Bill Schortman, I like better than his *Purple Ruffles* which received a great deal of favorable comment at the national meeting last year. *Polka Time* is a big ruffled purple with enough "oomph" to make one count one's iris money.

Bill has some fine things. His *Indiglow*, to be introduced next year, won Region 14's seedling cup this year, and deserved it, but I want to put in a word for *Pretty Redwings*. Normally I leave the reds strictly to my daughter who is twelve, and so is just the right age to start a red hybridizing program. I can't pass by this one though. A lovely ruffled flower, on the crimson side, it has enough garden appeal to found a charm school. The purists point out the haft markings, but in this case they enhance the flower.

Nomohr, in Jim Gibson's garden, impresses one again with its sterling qualities. It doesn't have the Mohr look, but is a fine big banana-cream flower, with brown haft markings, of regal carriage.

While on the subject of Mohrs, keep an eye out for the Luehns' *Mohrning Haze*—very much a Mohr, of gigantic size, in pale lavender-orchid with a blue beard. The flower holds up well.

Bloomin' Love (the name leaves me cold) of Wells drew the attention of the crowd at this year's Region 14 Spring Meeting. It's another giant, a ruffled plicata with rose markings on a cream ground.

Hall's Frost and Flame seems to me to be the first white with a tangerine beard which does not have to be apologized for.

Mary Ellen Knopf's *Mission Trails* I liked very much in its seedling days and see no reason to change my mind now. It is a fine blend of violet, heliotrope, and buff. The form is excellent, the standards are conical, and the substance remarkable. Branching is very good.

Mary Ellen has what seems to be a very good breeder in *Jade Queen*. This green-toned iris is giving seedlings with very novel color patterns.

Those who like creams (and who doesn't) should give consideration to *Clara Rees' Aristocrat*. A deep cream (really a yellow) with large, well-formed, ruffled flowers on a tall stem, it has much to commend it.

Butterscotch Kiss is the best laced variety that I have seen. The lace is pronounced; the form is good; and the yellow, gold, and butterscotch of the flower go well together. I have not seen the orchid suffusion shown in the illustrations and which I think might give an extra lift to the flower.

THE SEASON MOVES NORTHWARD

The interest in iris is booming in far Northern California and through southern Oregon. Spurred on by Region 14 Area Chairmen: Meta Belle Eames of Chico, the Grant Merrills of Red Bluff, and the Paul Maxims of Redding in California's Shasta-Cascades area, a number of new local clubs and shows have been organized.

The Maxims garden at Redding was past peak as we stopped by to get acquainted en route home from the regional meeting down in San Jose, but several long-blooming old timers were carrying on in fine style. Amandine was spectacular with loads of light yellow blossoms and sprightly flaring form. A clump of Tranquility was as soothing as its name, and the white blooms were holding up beautifully under a scorching sun. Ruffled Skies, a delicately tinted lavender-white of medium size, was doing superbly well in its home garden with lots of beruffled bloom on quite tall stalks.

. . . and into Oregon

Late frosts played havoc with the Region 13 season and caused postponement of the regional meeting at Silverton. However, the first week of May saw some spectacular early bloom in the Medford area at the beautiful garden of Dr. and Mrs. Kenneth Farley. The iris were displayed against a background of glorious lilacs and flowering trees, evergreens and brilliant splashes of red maple, truly a sight to make you catch your breath and inhale the fragrance.

Bellerive was simply loaded with wonderful cream and white blooms on tall stalks, outperforming all others for early display.

Majorette showed much more red in the falls, and a wonderful velvety texture, than I've ever seen before and is a star attraction in the Medford area; very floriferous.

Foxfire was outstanding on tall stalks, with a depth of smooth golden yellow that outshone many other yellows for quality.

Centurian was handsome in bright golden brown with a brilliant beard, very tall and wonderful color across the garden.

Mary Ella was a deep pure, smooth apricot of excellent form and flare, a real beauty and as fine as anything I've seen in this color class.

Black Mischief is consistently the best performer of the early blacks in this area; although it's not as tall as others, it is certainly taller than Black Forest and very blue-black with flaring falls.

Nevermohr was glorious, with rounded standards and falls in true Mohr style, deep clear dark violet.

Hummingbird was a pleasant surprise; simply tops for ruffly, buffy, yellow on white and very tall here with a real flare.

Applause was exquisite, a pale pink with a pastel pink beard, very wide and slightly deeper pink hafts, delicately ruffled.

Moonchild is another captivating little thing, a bright little tailored pale violet with a deep violet signal patch and cupped standards.

ON CALIFORNIA'S NORTH COAST

ALLEN M. HAM, Arcata, Calif.

We live on the northern coast of California and have that kind of climate to contend with. Here's a report on some of the iris as they grew for us this spring.

Golden Sunshine is a perfect yellow. Three well-spaced flowers were out at one time.

We found Deep Black the deepest color, very fine form.

Clasmont was a good peach-pink, and Party Dress was a much more lacy flower. For the first time our pinks looked real pink. We have discarded many varieties of pinks for lack of color. This year Mallow Marvel is blooming heavily and is truly pink.

Inca Chief, after three years, had a perfect stalk.

We found Stop, a good red; it bloomed in the fall on one stalk and two stalks this spring.

Figurine is a lovely ruffled grey blend, and very popular.

April Showers is a different yellow, with a bit of color on the falls.

We compared Ruffled Taffeta, First Violet, Violet Harmony, and Mary McClellan; and the latter is outstanding. It's more of a self and the form is perfect.

Cascadian and Cliffs of Dover are both very fine whites here, and both White Peacock and Wedding Bouquet are very dependable.

Jungle Drums is the "most!" "Unusual," is all one can say.

VARIETAL COMMENT

PEG GREY, Calif.

1958 will probably go down in iris history as the year it rained in California. All over the state growth was retarded right up until the third week in April when hot summery days brought on bloom. Small flowers and short stalks, or tall spindling stalks with top-heavy bloom were the rule rather than the exception.

Mohr Lemonade stopped traffic. It's a delectable pale lemon self, smooth as lemon ice, and the beard's exactly the same flavor; all done up in ruffles and comes in large size.

Bloomin' Love is a rose-on-cream plicata nobody will forget in a hurry. It has wonderful large ruffled blossoms, and lots of them, on tall stalks and the color is extra clean.

Blue Freckles is the shining star of the blue plicata class; glorious deep blue-violet is stippled in a broad band on snowy falls, and the standards appear almost solid. The beard is blue-tipped; the whole flower is flared away and ruffled.

Mission Starlight brings stars to my eyes! It's a dreamy blue which deepens into heavenly violet-blue at the heart; a flower to make you sigh and long for.

Mohrning Haze is another traffic stopper and one you have to keep running back to, just to make sure it's true. It's a tremendous smooth

grey-blue with perfect Oncobred form. Look again! It has a deep purple beard and dark velvet shoulders! And flowers galore on tall stalks with super branching.

Frost and Flame is marvelous and carries across the garden so you can't ignore it. It's a great big flower, snowy white and smooth with a brilliant red beard, and wonderful form on tall stalks.

My Darling is a captivating creature; tall, delicate, with a deep and definite gold rim all around the standards and falls. The shoulders are quite deep gold and there's a lavender wash through the white falls. Its form is exquisite, cupped standards and the whole flower lightly waved.

Pin Up Girl is a real honest-to-goodness apricot amoena. It has a faint flush of peachy-apricot through the base of the standards, almost solid apricot falls, and the tangerine beard is in complete harmony with the color scheme. It's very bright in the garden.

Swan Ballet is without question my favorite white; there doesn't seem to be another flower in any color which has that breath-taking look of being poised in mid-flight. The elegant ruffling, flaring falls, and perfect placement of those pure white flowers make this the standout in any garden.

Frilly Fringes certainly has! Many of the lacy creations give me the impression something has been chewing at their edges, but not this one. The crimping is refined and carried all around the bright lemony-cream standards and falls. It's a happy looking thing in its fancy frills.

Glittering Amber is a honey! The name is a little dark for this bright and sparkling beauty, though. It is a luscious apricot blend, shading to apricot-amber at the heart with a vivid tangerine beard in complete harmony. You can actually see it glitter in the sun.

Valimar is pure ripe apricot, shows perfect ruffling and firmly closed standards, with prolific bloom on well-branched stalks. It's interesting to see Valimar alongside its sister seedlings, Enchanted Violet and Gay Adventure. Enchanted Violet is a knockout; a great big beautiful violet which is quite deep with a red-violet cast as it unfurls and then blossoms into delightful light violet with just a faint flush of pinkish-orchid in the falls. A bright cerise-red beard makes you sit up and take notice. Gay Adventure is more subdued; very wide and a fine grey-violet, lighter in the center of both standards and falls and a bright yellow beard. The form is wide and flaring and nicely ruffled.

Williwaw was probably the most intriguing item seen in many a year. The back of the falls are deep violet. The whole flower is chalk-white. This one is a real novelty and a beautiful one, well formed with loads of fascinating flowers.

Regina Maria is a glorious perfect blue. One tall handsome stalk with three blooms open is a sight to make you catch your breath. The marvelous ruffling and fine width, along with its pure medium blue, make this well worth its rave reviews.

Helen McCaughey is simply sensational with a personality as sparkling as its namesake! It's an outstandingly large flower in smooth blue, with beautiful broad falls showing a lighter flush in the beard area.

Spanish Main is a real spark of color across the garden. Done up in a brilliant blend of brown and orange tones, it has wonderful carriage and form on tall stalks and a lively orange beard. It seems to be an exceptionally fine grower with excellent foliage.

Mademoiselle is simply alive with color in the garden and shows magnificent branching, substance, and form on tall stalks. The color is deep amethyst with bright chestnut shoulders and a violet-tipped beard, boasting delightful ruffles and falls which flare with a flourish.

Tallchief was certainly the tallest of the reds, and about the smoothest. It shows dignified tailored form, very flaring with not too much branching. Crescendo shows excellent branching and is very floriferous in deep velvety red.

Gracious and Purple Ruffles were superb. Gracious is a deep true purple with a beautiful white beard, full form and very smooth. Purple Ruffles has a yellow beard and loads of ruffles and is very broad and smooth. Polka Time is still another, and a different purple, this time with a self-purple beard, and all three are extra special quality all around.

It was interesting to see a whole series of old-timers out-performing the newest of the new.

Thais, pollen parent of Snow Flurry, was outstanding in the Rees garden at San Jose. This old diploid is a lovely tall violet, exceptionally floriferous and with good clean foliage. It was more than holding its own in a bed with some very new introductions.

Dreamcastle was wonderful and bright; its rosy lavender tone is great in the garden.

A large ruffly yellow, which is super here in California, is Ruffled Organdy. And for delicate pastel, blending pink and yellow, Easter Bonnet is perfectly beautiful. It has marvelous branching and is loaded with bloom.

Pierre Menard has been exceptionally fine in a deep blue that's hard to beat, while in the purple class Northwestern is a knockout. And speaking of that, The Knockout was a star performer with great big ruffled yellow and white blooms, and loads of them, on tall stalks.

Ballet Dancer is still one of my pets for lots of buffy gold bloom and flared falls.

I finally saw Dark Chocolate looking chocolate colored! Looked good enough to take a bite.

Among the other new and near new ones which looked well worth acquiring:

Hindu Wand, a buffy chartreuse blend with deep brown hafts and a bright orange beard, lightly ruffled and a beauty.

Orange Banner, which is closest to a real orange that I've seen; a

tremendous flower with bold form; Orange Frills is lovely, but more apricot than orange with a light area in the center of its flouncy falls.

Violet Hills varied greatly; some plants displayed much deeper color and smoother texture than others in other gardens; some had large well-proportioned flowers while others were small, but it's an exceptionally smooth deep violet with a self beard.

Channel Islands is a glorious golden yellow with a white snip in the lower portion of the falls and charming perky form which makes it sort of saucy.

Violet Harmony proved its DM-winning ability with a wealth of bloom, beautiful depth of color and exceptional plant habits; a large flower in real violet shaded white just below the beard and elegant!

Snowfire was a white with tangerine beard which created much comment; it's much smaller than Frost and Flame, more tailored form and clean with nice proportion.

Patrician is a standout in any company; large pure white with brilliant golden yellow hafts and beard, and form to match its stately name.

Calypso is terrific, pure purple, gaily flaring falls and a flourish to it that is seldom seen in this color; I thought it quite different from the newer and equally thrilling Sweet Regrets, which has regal carriage and such depth of true purple color it is immediately noticeable across the garden; the branching is the best ever and blooms are extra long lasting.

Dutch Doll is a charming plicata in deep violet on pure white, with precise stitching, and it does look for all the world like a Dutch Doll.

Jade Queen is something intriguingly different and one which you'll be wild for or not like at all; I think it has simply elegant form and poise; it's odd, color-wise, with greyed chartreuse background heavily marked pure gold at the hafts with a matching gold beard; it's one which definitely needs the proper setting for best expression of its personality.

Nona is also a distinctive one with very smooth satiny chartreuse and a self beard; very good color and marvelous substance.

Queen's Taste is a charmer and certainly a color novelty in jewel-like amethyst standards and ruby falls.

Pink Pomp was one of the top pinks for me and it is pure pink; what makes it outstanding is the cerise pink beard which I far prefer to the tangerine beard on a pink flower.

Wild Blue Yonder is a heavenly shade of blue-violet with wings that soar and a brilliant self beard.

Ruffled Starlite, a sister seedling of Mission Starlite, is entirely different and equally lovely in pastel blue done up with frills and ruffles.

A clump of the New Zealand bred Destiny was most intriguing; it was introduced by Jean Stevens under her maiden name, according to Bill Schortman, and is a deep red, very tall, and extremely floriferous.

And outshining all the chartreuse-toned Mohrs was Mohr Majesty, a great big brilliant flower with a clear violet wash through the upper falls, excellent branching with loads of bloom.

THE WASHINGTON SPURIAS

ELIZABETH N. NESMITH, Mass.

Mr. Thomas A. Washington of Nashville, Tenn., a skilled horticulturist, was intensely interested in all forms of plant life; as a consequence his garden contained many rare plants, trees, and shrubs.

In the very early days of his interest in hybridizing it was with bearded iris that he made his first crosses, and he produced many excellent ones for he had an instinctive appreciation of color value. However, his great contribution to the development of the Tall Bearded iris was his careful selection of those that had well-shaped flowers, good branching, and substance; for these he received many awards culminating in the Dykes Medal winner, Mary Geddes, named for Mrs. Mary Geddes Stahlman who affiliated with him in the hybridizing work.

He was a natural collector of plants, especially iris, this leading to his acquisition of many of the earlier Spurias; and his important work in hybridizing these met with great success, for it resulted in a new remarkable range of color in these beautiful flowers that have been praised in all parts of the country.

Mr. Washington, according to records, was the first one to do extensive breeding of Spurias in the United States. The first time I visited Nashville and saw these hybrids was in 1929 or 1930, and as they were growing in large clumps, the breeding work must have commenced as early as 1924—for as most Spuria breeders know, they are very slow of increase.

I was completely charmed by their beauty and insisted that several of them should be named and introduced, and in 1931 I sponsored the introduction of some of them. During the years prior to the passing on of Mr. Washington, several more were introduced. Following is a list of them and the dates of their introduction:

Euphrosyne 1931	Ben Lomond 1935
Hazy Hills 1931	Skyline 1936
Fairy Wand 1931	Bathsheba 1936
Indian Summer 1932	Lumiere 1936
Harpeth Hills 1935	Monteagle 1936

Unfortunately, and it is to be deplored, he kept no records of his crosses. When he was urged to do so he would say, "What is the use of all this bother for I know the crosses I have made." This seemed true, for when asked about the parentage of a certain seedling he could always tell you just what it was, but with his death, all knowledge of his breeding went with him.

I know he had the following named varieties growing in his garden: Halophila, Mrs. A. W. Tait, Aurea, *I. monnieri*, *ochroleuca*, and a blue Monspur that was either A. J. Balfour or Cambridge Blue. Thus it must have been from the hybridizing of these varieties that he produced such remarkable results.



Spuria Iris Society Test Garden, 1958, Houston, Texas

His death in 1939 when he was in the prime of life was a great loss to the iris world, for he had done so much in creating new iris, and everyone looked forward to additional developments from his continuing in this work.

After he passed on, their town house was sold and many of the iris were moved to the country home, but in the transplanting some Spuria varieties were either lost or became mixed so that it was necessary to discontinue listing a few of them.

Quick of wit and repartee, he had many interesting tales of earlier days and the experiences he had in collecting rare and unusual plants in his trips through the wooded areas of the South.

Only the members of his family and closest friends knew that he had been subject to heart attacks that in the end proved fatal. His calm, undaunted courage in meeting this last illness was an example of the way he had always faced the "ups and downs" of life.

To those who knew him well, he will always be remembered as an unfailing friend and a true "Southern Gentleman."

SPURIAS IN HOUSTON

ILA NUNN, Texas

A two-afternoon "open garden" in April at the Test Garden of the Spuria Iris Society in Houston, Texas brought out about two hundred visitors in spite of heavy rain the second day. This was the first time the Society had carried to completion the plan of a special invitation to the public through the press, although in other years, the bloom season has attracted many visitors including garden club pilgrimages. More varieties have been in bloom at once in other seasons, with more old established clumps to view but with fewer new plantings.

The 1958 season, however, saw represented in the garden forty-three named varieties, three species, and five unregistered Spurias under number, as well as a group of the newer Louisianas. Of the Spurias quite a few had not come into bloom on the opening date; others were on the wane, but the Spuria bloom never fails to excite Test Garden visitors, and the hosts felt the occasion turned out most satisfactorily.

Early bloom in the Test Garden from clumps of Mrs. Nesmith's Royal Toga and Mr. Walker's Canary Island, side by side, was spectacular. Canary Island, previously reported as slow in Houston, belied former showings with eleven stalks of bloom on a three-year clump. Royal Toga broke all records for number of bloom stalks, with thirty-two. It is so similar to what has formerly been received in Houston as the old Lord Wolsely that it is impossible to distinguish between them, except for unusually vigorous growth and very early bloom of the Test Garden Royal Toga.

The best white yet seen in the garden was Walker Ferguson's 55-1A, blooming very early ahead of his excellent 55-1, which was seen last year and rated high. 55-1A is wider and more frilled both in standards and falls than other pure whites, is well-branched, many blooms to the stalk, the light yellow signal patch not dominating nor detracting from its whiteness.

Blue Display (Nies), early, reliable and excellent, has medium-sized flowers of blue with slightly darker veining on well-rounded falls with yellow signal smaller than Dutch Defiance (Nies). The larger, oval, frilled falls of Dutch Defiance distinguish it as the best blue of the older Spurias, with Azure Dawn (Nies), taller and lighter in color, running a close second. Craig's Blue Valentine with its notched, heart-shaped falls is a novelty, but because of its smaller flowers is less effective in the garden than the above-mentioned blues. Dresden Blue (Nesmith), with its porcelain tones has unique color, but unfortunately the whole plant, foliage and flower, is inclined more than any other iris in the Test Garden to virus infestation. It will be removed from the Test Garden because so little is known as to whether this will spread to other virus-free varieties.

I will mention a few yellow selfs to clear up some confusion about these. The darkest of these is Gold Standard (breeder unknown); Golden

Nugget (Dean), taller than all the yellows yet seen here, is lighter in tone with broader rounder falls, a very good iris. Sunny Day (Sass), medium height, prolific bloomer, with broad round curved-under falls is well known as a good garden subject, becoming a yellow bouquet in mid-season. Wadi Zem Zem (Milliken), famous for its huge pale yellow flowers with heart-shaped falls, seems the finest yet, although Sweet Butter (Craig), is a close second in the light yellow class. Taylor's Ruffled Gold, though larger in span of flower parts, does not seem to compare in form and beauty with Craig's Investment in the deep yellows, although it's medium height, if constant, is an asset. It has been seen only as a new planting (first year) here.

Peaches and Cream (Taylor '58) has light creamy yellow standards, deep orange-toned falls, but is not as large nor as frilled as others in this color. Orange Delight (Walker) has broad, round standards with falls of excellent substance, similar coloring, the deep orange falls narrowly bordered in cream, very rich and much frilled. It bloomed very late this second spring in the garden, did not bloom last year.

This bloom season I set myself the task of noting differences in Spurias so similar that the beginner can hardly identify them. This is true especially of the many brown-toned ones. Bronze Butterfly (Brenan) has less red than Cherokee Cheif (Nies), lacks Cherokee's frills and size, seems not as vigorous here, but is still a new planting. The handsome Black Point (Nies) is browner than Bronze Butterfly and a larger iris. Diminished by rot last year, it did not bloom this year. Russet Flame (Nies) shows a richer brown overlay over yellow than either Bronzespur (Nies) or Golden Agate (Nies), the latter perhaps the best bloomer of the three. Sun and Shadows (Craig) should not be classed with these browns because the much-admired lavender gray tones of its standards and falls combined with yellow make it a rather unique color. It blooms earlier than the others, except for Black Point, is tall and excellent as to increase. Michigan State (Nies) distinguished for size and ruffling in the light sepia tones and for a late blooming period, is a handsome iris.

Another group of Spurias similar as to size and color class: Canary Island (Walker), Lark Song (Nies), Dr. Annie Besant (Stanley), and Yellow Swallowtail (Nies) were also studied for their identifying differences. All have narrow cream borders on deep yellow falls and creamy standards. Dr. Annie Besant shows a chartreuse green coloring on the style arms similar to *I. ochroleuca*, grows tall, and blooms early to mid-season. Lark Song, very popular here for prolific, showy bloom, is yellow-toned on the style-arms as are both Canary Island and Yellow Swallowtail, the latter being more tailored with tucked-under falls. One advantage of having all these irises of similar beauty, is that bloom can be enjoyed over a longer period. Lark Song rates tops for performance here with nineteen bloom stalks to the clump this season.

The species iris tried in the garden other than *I. ochroleuca* have not

thrived too well, perhaps needing a less rich fare, especially *sintensisii*. This tiny blue wilding bloomed sparingly after all the named varieties.

The group of Nies-Walker and Walker irises are the finest in the Test Garden, well-branched with frilled blooms of outstanding size. The lighter blues, Fairy Lantern (Nies-Walker), Ruth Nies Cabeen (Nies-Walker), and Sunlit Sea (Nies-Walker), are somewhat similar in coloring. Fairy Lantern had six bloom stalks this second season, the two others only one. Ruth Nies Cabeen gives a bluer effect than the other two, the yellow signal patch covering a much smaller area on the falls. Blue Nightshade (Walker), a dark purple-blue, did not bloom this year, but was rated outstandingly beautiful last year. Katrina Nies has not bloomed here in either of two seasons.

Morningtide (Walker) with a pale blue network of color over white, has shown good increase; had five bloom stalks this second season, with excellent branching, although it did not bloom the first year.

Driftwood (Walker) tops all brown iris for color, size, and form in bloom; but has shown little increase in this second season, a judges' favorite, along with Morningtide.

The Bulletin is pleased to learn that the Orpington Nurseries, made famous by the late irisarian, Olive Murrell, will be operated in the future by the former Bulletin contributor and son-in-law of Mrs. Murrell, Laurence Neel. It goes without saying that the high standards set by Mrs. Murrell will be maintained by Mr. Neel. All inquiries may be sent to Mr. Laurence Neel, West House, Walton Park, Walton on Thames, Surrey, England.

INTRODUCING

DON OF GAVIN, T. B. 40" M.L. NET 25.00

After the Memphis show, many letters and cards (26 exactly) were received, asking when and where the Don could be obtained. Seedling s.d. 86—from Cascade Splendor X pink sdlg. s.a. 13—wide rosy buff standards, flaring rosewood falls, gold hafts and style-arm with heavy gold beard, heavy stalk, good branching and straight tall green foliage.

ISLE ROYAL T. B. 42" M. NET 10.00

Medium violet-blue self even to the beard, lovely, sdlg. s.c. 6—Chivalry X sdlg. s.a. 5, Great Lakes X Sable, good branching and foliage.

ENGAGEMENT T. B. 42" M. NET 10.00

Ruffled blue-white, sparkles like an engagement diamond, white beard, straight tall stalk, well-branched, sdlg. s.c. 21 Parma Violet X sdlg. s.b. 4. Snow Flurry X Great Lakes, has distinction.

COPPER HARBOR T. B. 36" M. NET 20.00

Copper brown with golden glint, big golden bronze beard, with standards and wide flare falls, Mexico X Tobacco Road, this is the big brown so many friends have been waiting for.

ROSYL SAVAGE

PRAIRIE RIDGE GARDEN, COMSTOCK, MICHIGAN

ON GROWING SPURIAS IN HOUSTON

W. D. LEE, Texas

Spurias grow here in Houston as if they were native born, and it would seem that Houstonians have grown Spurias just about as long.

Even though Spuria culture is no new thing to us, we do have our problems. One basic one is the several types of soil that complicate cultural directions. North of the bayou (by-o) we have a light sandy soil; south of the same body of water we have a heavy, black, gummy soil. So just within a few miles, culture must be and is different.

In my own garden, the sandy soil grows Spurias to perfection. No special beds are necessary due to perfect drainage; only food is needed.

In the heavy soil, it is necessary that either the beds be raised above ground level or that soil texture be improved with sandy soil or other such media.

We find that replanting (if necessary) or new plantings here should be done in the fall. The time should be determined by the arrival of cool weather. This is usually the latter part of September or October. We like to move Spurias when the new growth begins, and that time matches the cool rainy weather of October. From personal experience, I find that early receipt of new Spurias during hot unfavorable planting weather can be handled by potting the Spurias in gallon cans. They can be held in the cans until growth is well advanced and then placed in their permanent locations without disturbing plant growth. I find this can-culture an excellent procedure with the very expensive new varieties, regardless of arrival date.

We all use a commercial fertilizer such as 8-8-8. The analysis is really a matter of personal choice. It is generally agreed that there should be a fall dressing of fertilizer after the growth begins and another lighter application some six weeks before bloom. Manure is and has been used.

Growth of Spurias here is with the coming of cool weather and continues through the winter. Even the twenty-two degree weather of last winter did not stop their growth. The coming of hot weather finds a decline in growth and even dormancy in several varieties.

We water, if necessary, during the growth period. With hot weather at hand, we water sparingly. Water and heat gives an unhealthy time to the rhizomes.

Another basic problem is rot. To my satisfaction, the type of rot has not been determined. It seems to me it is a result of not providing proper drainage. I find that a cherry red solution of potassium permanganate poured over the uncovered rhizome is as effective as anything else we have used to control this rot. Sunlight and air are a part of this treatment.

While we may have our culture problems, we can truthfully say we have some of the most beautiful Spuria blooms to be seen anywhere.

NOTES ON THE SPURIA IRIS SOCIETY

WILLIAM WALLACE

In 1952 the Spuria Iris Society, a section of the American Iris Society, was organized in Houston, Texas, under the distinctive aegis of Mrs. J. Willis Slaughter. As its by-laws define it, "The object of the society is to maintain a garden for testing clonal varieties of Spuria iris; to identify varieties and eliminate duplication in nomenclature; to maintain a check list of registered varieties; to conduct experiments to establish species relationships and heredity factors; to maintain a display garden; and to promote public interest." Dr. Philip G. Corliss gave encouragement and his wide knowledge in this field.

A good start toward achieving some of the plans of the society was made possible by the joint sponsorship and financial aid of the two local affiliates of the Garden Clubs of America: the Garden Club of Houston and the River Oaks Garden Club. The most immediate result was the construction of the display garden on the grounds of the River Oaks Garden Club Forum Building.

The first plants were donated by commercial growers: Lyon Iris Gardens, University Hills Nursery, House o' Macs, Sidney Conger, Fairmount Gardens, Courtade's Nursery, Caroline Dormon, and Milliken Gardens; and interested, generous individuals including Mrs. Slaughter, Mrs. R. C. Meysenburg, the late Mrs. John E. Green, Jr., Mrs. Allen Hamill, Mr. and Mrs. Joe Perry, and Mrs. Edward Wilkerson.

At the age of five months, the Spuria Society published its first newsletter, proudly announcing sixty-eight members from eleven states. Since then Australia, New Zealand, and South Africa have become represented. In following issues of this newsletter, we read glowing accounts of the first, valiant flowering of these early inhabitants of the display garden. Craig's Investment "catches the eye like a beacon; wind and rain did not faze it." Sun and Shadow was "most intriguing, a symphony in lavender, gray, and yellow." Another group is "truly the harbinger of a new race." Once in a great while, a phrase creeps in unbidden, which hints that the path to all this glory was not strewn with rosy iris falls. We have a sense of low complicity between Monteagle and Two Opals, when it is suggested they have an "unco-operative attitude." Then we are brought abruptly down to earth by this bold statement, describing the test garden soil, "Chemical analysis showed it to be more suitable for making bricks than flower beds."

But brave ideas predominate in the pages of the newsletter, and these have found their justification in the many triumphs of the display garden. In its beds have flourished fifty-nine different Spuria iris—named varieties and species, including the best named varieties to be obtained, new and old.

In the fall of 1954, the two sponsoring clubs of the Spuria Iris Society established a grant-in-aid for a research program, so that a more scientific

plan of breeding could be undertaken. The program was started at Texas Agricultural and Mechanical College, with Dr. Henry H. Hadley, of the Department of Genetics, directing. Chromosome count, meiotic behavior, and the determination of recessive and dominant genes in color and size were tentative goals. This work was interrupted when Dr. Hadley went to the University of Illinois. His *Report on the Status of Iris Project No. 963* was published in Newsletter No. 5, Vol. 2.

After sustaining its work under successive presidents, the Spuria Iris Society has broadened its horizon under the "look-forward" leadership of Mrs. Stayton Nunn, who was elected president in 1957. Mrs. Nunn and the executive board realize the need for decentralization in the election of officers and wider participation in the aims of the group by all the members. Up to this time, officers and committee chairmen have been selected from the Houston group. This seemed necessary in order to have decisions and actions taken quickly, especially in conducting the display garden. Now, it is hoped there will be other test and display gardens for Spuria iris, and a board which would be representative of the areas where there is the most interest and activity with Spurias would best serve the group and help it to grow.

As a start toward this goal, the board at its January meeting voted to request suggestions for nominations for officers from the total membership and from interested members of the American Iris Society, in order that the nominating committee might select a slate representative of all areas of Spuria interest. These suggestions for nominations and also operational changes in the present organization may be sent to Mrs. R. W. Tideman, 6 Chelsea Place, Houston, Texas.

This account of the Spuria Iris Society would be ungracious without a word of thanks to Mrs. Slaughter, to whom, above all, the group owes its being. It is one more symbol of her dedication to the pursuit of beauty, and a glimpse once attained, is freely passed on. The quality of unerring discrimination is hers, and being hers, is our own. It is the same degree of intent, when she offers a most willing hand to the neophyte, which finds its ultimate fruition in inspiration to the knowing. This little paean is intended by those who offer it, as small return substance to one who looks not even for the shadow, in yield.

INTRODUCING

GRADUATION GIFT (Snow Flurry x Pink Formal) X Marsala. Luscious orchid-pink self with a bright coral-pink beard to match. The very large flowers are beautifully ruffled and laced. Standards, well-domed and falls flare nicely. Each bud socket carries 3-4 buds, giving a wealth of bloom on excellently branched stalks. Fertile both ways and already proving to be a remarkable parent. H.C. '55 \$25.00

AWALT IRIS GARDENS

22448 B ST., HAYWARD, CALIF.

COMPLETE LIST OF SPURIAS GROWN IN HOUSTON TEST GARDEN OF THE SPURIA IRIS SOCIETY

MRS. R. W. TIDEMANN, Texas

- Alice Eastwood (Branin), white and yellow. Good performer.
- Azure Dawn (Nies), late, tall, slightly ruffled, pale blue with small pale yellow signal. Long bloomer and good grower.
- Azure Fairy (Nies), poor performer. No longer in garden.
- Bathsheba (Washington), poor performer here. Did not replace.
- Big Cloud (Craig), broad, creamy white with ruffled edges, pale yellow signal.
- Black Point (Nies), early. Satiny dark brown with almost black buds on forty-five-inch stems. Long bloomer and a good grower.
- Blue Display (Nies), mid-season, good performer. Compact rounded standards and falls, medium blue with yellow signal slightly veined darker.
- Blue Nightshade (Walker), late. Deep purple blue with warm brown signal patch, large and frilled. Beautiful form.
- Blue Pinafore (Craig), mid-season. Ruffled blue and cream with blue veining. Good performer.
- Blue Valentine (Craig), low growing. French blue with gold center, notched and heart-shaped falls. Good performer.
- Blue Zephyr (Washington), very late. Blue with white area in falls instead of yellow, giving bluer effect than most Spurias. One of the few "Washingtons" to thrive here.
- Bronze Butterfly (Brenan), pale brown and gold.
- Bronzespur (Nies), warm coloring, yellow-gold and tan.
- Canary Island (Walker), early. Ruffled canary yellow with narrow white border on falls, cream standards flushed yellow.
- Cherokee Chief (Nies), late, medium height. Frilled, reddish brown with vivid yellow patch. Good performer. Flecks in bloom.
- Color Guard (Nies), blue. Did not thrive in Test Garden. Not replaced.
- Dr. Annie Besant (Stanley), mid-season, tall. Large ruffled cream with bright yellow patch almost covering falls. Greenish cast on inside of standards and style arms. Good grower and bloomer.
- Dresden Blue (Nesmith), clear china-blue and white with almost no yellow in falls. A prey to virus in foliage and flower.
- Driftwood (Walker), late. Very long wide falls, a deep velvety brown with vivid yellow patch, brown standards. Superb garden value.
- Dutch Defiance (Nies), late, low. Large frilled, bold blue with light gold patch. Good performer.
- Euphrosene (Mrs. T. A. Washington), has not thrived.
- Fairy Lantern (Nies-Walker), very frilly medium blue with large yellow signal patch. Good branching, many-flowered.
- Fairy Light (Thorup), low, small creamy white, tailored.

Fifth Symphony (Nies), early, all over delicate brown veining on deep yellow. Good performer.

Golden Agate (Nies), mid-season. Brown, bronze and yellow. Profuse bloomer and good grower.

Golden Lady (Combs), light yellow. Did not bloom. First season.

Golden Nugget (Dean), mid-season to late. Very tall, slightly frilled, well-rounded falls. Good performer.

Gold Standard, late, low to medium height, deep yellow, long falls. Good performer.

I. graminea, lost in garden without blooming.

Grey Lady (Combs), new planting, very late. Clear gray, not large.

Hazy Hills (Washington), lost in garden without blooming.

Investment (Craig), mid-season. Wide and flaring with a deep yellow color, beautiful rounded form. Good performer.

Katrina Nies (Nies-Walker), has not yet bloomed in garden through two seasons.

Lark Song (Nies), mid-season to late. Very ruffled creamy white standards and orange yellow falls with narrow cream border. Excellent performer. Floriferous.

Lord Wolsely (Foster), mid-season. Deep blue-purple standards, falls white overlaid with purple veining.

Lumiere (Washington), lost in garden without blooming.

Michigan State (Nies), late. Yellow-brown bronzed by light veining. Long bloomer and good grower.

I. monnieri, early, yellow.

Monteagle (Washington), poor performer here.

Morningtide (Walker), first bloom season after planting, made proliferation only, second year, good increase, excellent bloom. Palest of blues, maturing blue-white, large, floriferous, beautiful flower form. Outstanding.

Mt. Whitney (Milliken), mid-season. White with large yellow patch. Good performer.

Mt. Wilson (Milliken), early, tall. Medium blue with dominant yellow patch. Good performer.

I. ochroleuca, early. White with yellow signal, greenish cast. Floriferous. Excellent performer.

Orange Delight (Walker), bloom second year, little increase. Unusually wide, rich creamy standards, bright orange velvety falls with very narrow cream border, yellow gilding on style-arms. Very ruffled.

Pastoral (Nies), mid-season. Opalescent yellow to lavender with many blooms open at once. Good grower.

Peaches and Cream (Fred Taylor), pale cream standards slightly darker falls with orange signal.

Royal Toga (Nesmith), early. Dark violet-blue standards and white falls veined violet-blue. Excellent in increase. Floriferous.

- Ruffled Gold (Fred Taylor), medium height. Large deep yellow, wide span of falls.
- Russet Flame (Nies), late. Brown over bright flame yellow. Fair performer.
- Ruth Nies Cabeen (Nies-Walker), mid-season to late. Medium blue with small yellow patch. Frilled and well-branched.
- Saugatuck, mid-season, tall. Lavender, bronze, and yellow blend. Good performer.
- Shelford Giant (Foster), creamy white with yellow signal dominant in falls. Good performer. Name misleading.
- I. sintensii*, very low, narrow foliage. Bloomed this year. Tiny blue and white. Few Blooms.
- Skyline (Washington), lost without blooming, now replaced. Gray-blue.
- Sun and Shadows (Craig), very early. Lavender-gray and yellow. Good performer.
- Sunlit Sea (Walker), late. Light, violet-blue wide-frilled standards and falls, banded blue around bright yellow on falls.
- Sunny Day (Sass), mid-season, yellow. Low. Good grower and bloomer. Eric Nies Award 1957.
- Sunnyside (Craig), mid-season. Cream standards and styles, canary-yellow falls, edged cream. Broad flowers, good form. Good performer.
- Sweet Butter (Craig), early. Creamy yellow with greenish tint, rounded falls of 2" and slightly cupped standards 1¾". Outstanding in garden. good bloomer and grower.
- Two Opals (Nies), late. Opalescent blue, lavender, and cream deepening to yellow in center. Small very ruffled falls. Poor performer here.
- Wadi Zem Zem (Milliken), late. Creamy yellow, large tailored blossom. heart-shaped falls. Blooms of fine texture and substance. Superb garden value. Eric Nies Award 1956.
- White Crane (Craig), early, tall. Distinctive white with yellow signal, wide flare. Unregistered garden name.
- White Heron (Milliken), mid-season. Good white, slight ruffling, fine form and substance. Good garden value.
- Yellow Swallowtail (Nies), slow here. Tailored cream and deep yellow. narrow border on falls.
- Zephroso (Nies), late dainty ruffled pale honey-yellow and lavender. No bloom here, two year clump, but good increase.

Spurias under Number

- 55-1 (Walker Ferguson), outstanding white, heavily branched. Ruffled standards and falls, bright yellow patch. Bloomed 16 months from planting of seed.
- 55-1A (W. Ferguson), early. Outstandingly beautiful white. Heavily frilled. Could be best white. Well branched.
- 55-5 (Ferguson), cream and yellow, large and frilled. Flowers bunched
- 57-17 (Ferguson), yellow. Unusual crinkled edging.
- 57-10 (Ferguson), did not bloom.

JUDGING THE SPURIA IRIS

PHILIP G. CORLISS, Somerton, Ariz.

The introduction of Spuria hybrid iris with new and improved characteristics has changed the standards by which we must evaluate them. Today's candidates for honors have charms which were unsuspected when I helped formulate rules for judging Spurias only a decade ago. True ruffling and branching were then unknown in the Spurias. Certain other forms have also appeared which must be considered in appraising the new hybrids. Among these are: (1) An open orchid-like type of flower and (2) An informal bloom which although not starched and crisp, has undeniable merit.

Judging Spuria Iris in Shows

As with all flowers, judging a Spuria iris in shows is a different matter from judging it in the garden.

THE STALK:

The stem must be straight and strong enough to support the blooms without being too massive in proportion to the flowers.

Height of stalk should be in proper proportion to flower size.

Number of open flowers is extremely important. Four pairs of flowers are always preferable to three pairs. One of each pair should be open at time of judging for highest rating. Many varieties open the first bloom of the top pair, then one of each of the remaining pairs *and* the second of the top pair; therefore no points should be deducted for removal of the spent flower of the top pair.

Placement of flowers is now more important. When no branching is present, the flowers should not be clubbed together at the top—they should be spaced down the stalks so that the open flowers do not touch each other. The availability of varieties with true branches from six to more than twelve inches long makes such clones more desirable in the garden and for decorative use, but should not give them precedence over the non-branched stalks which have good spacing of their four pairs of flowers.

THE FLOWER:

Form: Closed standards and arching rather than drooping or horizontal falls have been considered necessary for a good iris flower. No more! For instance, to me there is no flower more beautiful nor useful for corsage work than my own Blue Corsage. This is because its standards are spread wide open and its falls flare. Another handsome type has peaked closed standards and relatively narrow falls which have a straight drop, creating a cathedral-like bloom which has a unique attraction. The standards of my Silver Butterfly tend to 'tip' in one direction, creating a sense of motion which fully compensates for absence of the classical, domed form. You may say, "But you must think any form is all right." Not so. Two domed standards and one collapsed one are not good. Two arched



Spuria iris, Lady Burton. A new color combination for Spuria iris—the standards are soft gray and the falls are Havana brown (Corliss, Registered 1956).

falls and one drooping or horizontal one are not good. Let us judge then if the form is a pleasing one.

Width of segments: I have noted above a type where narrow segments are permissible. In general, flowers with broad segments are preferred. I like to get a peek into the center of any iris, so I would not ask the standards to completely overlap. Let the breadth of both standards and falls be in proper proportion to the size of the flower and contribute to the desired effect of the entire flower head.

Other Characteristics: Ruffling, crimping, and (common to many clones) a large dent in the lower portion of the falls, giving the shape of an inverted heart, are other variations of the flower. They are not always desirable, nor do they necessarily merit more points; for an occasional smooth flower is a welcome sight among its ruffled fellows, whether they be iris, daylilies, or gladioli. How to give points? Don't! Take them OFF the number assigned to form if any of these factors contribute to a form which is not perfection for its style or type.

Texture: We do not have many velvet nor satin textures in *Spuria* iris—yet. There is a translucent quality to some (such as Silver Butterfly) and a sheen to others (such as the iridescence of Gold Beacon and Golden Bath). We shall see new texture developed in the future.

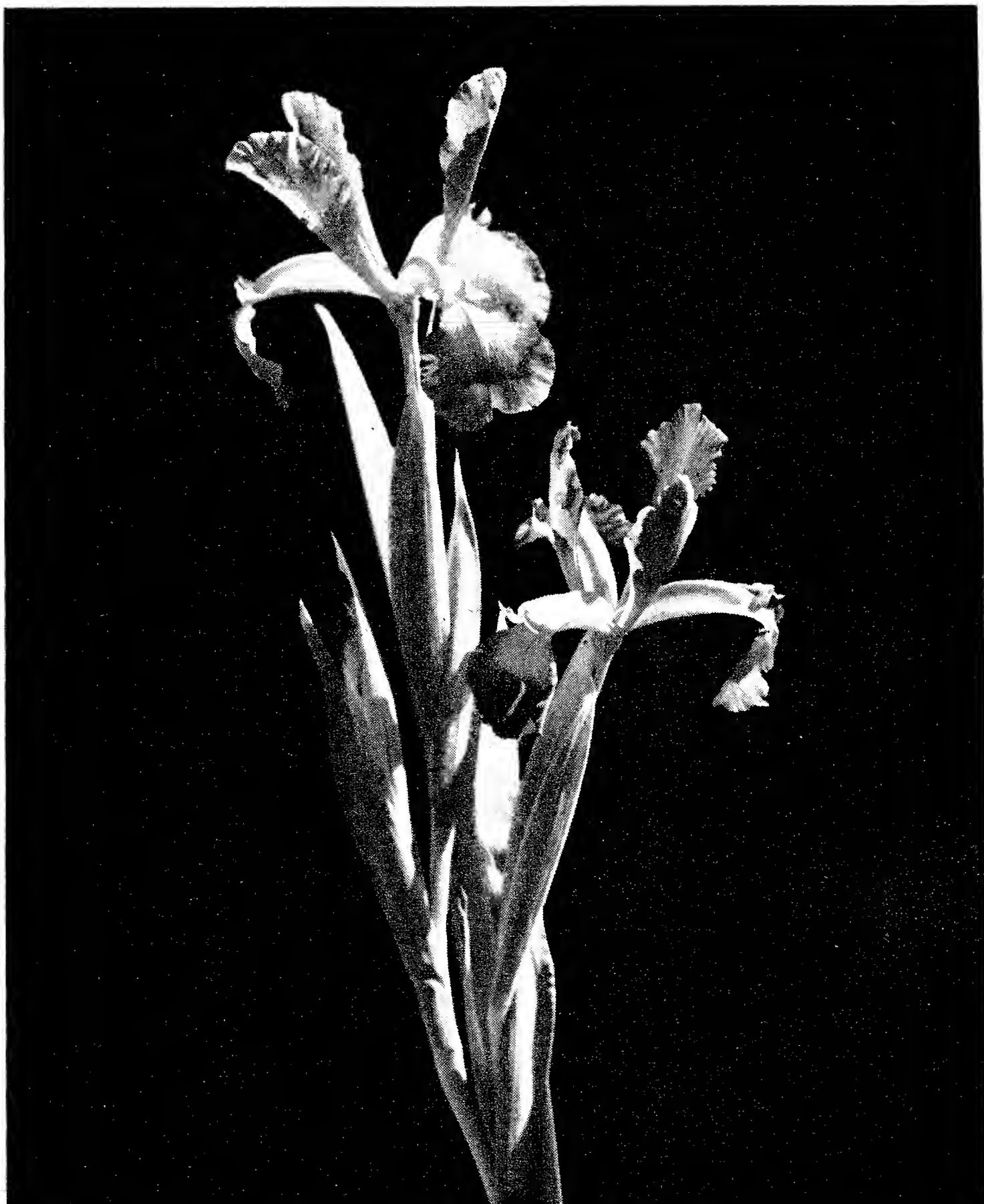
Substance: Little comment is needed here. One of the greatest merits of the *Spuria* iris is the remarkable substance of the flower segments. Seedlings and introduced varieties which show diminution of this characteristic must be penalized.

Color: This is a matter of personal taste. My own liking is for any color, as long as it is red. (To date I have found no scarlet seedlings.) Blue is anathema to me, either in home decoration or the garden. But blue iris have dominated the Popularity Poll of the bearded iris for all time, even though the blue sky and the reflected blue of pools supply this color. I am just as unmoved by green flowers; the foliage of flowers and trees and shrubs and lawns provide the greens which should be a foil for the flower color. I am not breeding for "restful" green flowers, or even green throats of flowers. I prefer to be stimulated by flowers. You say, "The color must be clear, not muddy." But many people prefer bicolors, plicatas, and blends, the last of which are termed "muddy" by many judges. In shows, therefore, points should be deducted for faulty color if (1) the specimen does not compare favorably with others of the same variety, or (2) it is altogether not pleasing.

Judging *Spuria* Iris in Gardens

(All of the factors considered in judging exhibition specimens are included in the appraisal of iris in the garden, with the addition of the following.)

THE FOLIAGE: The foliage of *Spuria* iris is one of its greatest assets as garden material. It should be stiff, upright, healthy, and of good color. In height it should not rise above the bottom flower of the stalks.



56-S-19 (Corliss), Brown—note branching.

BLOOMING PERIOD: Although the Spurias bloom for more than two months in my garden, their flowering period in the north may be limited to ten days or so. I am therefore in favor of giving extra points to clones which extend the Spuria season—early or late.

DURATION OF BLOOM: Most Spuria iris flowers remain in good condition for several days. Seedlings are appearing which maintain an extraordinarily long display, such as Gold Beacon, which often keeps flowers open during the entire parade of the other varieties. Points should therefore be deducted for short-lived flowers.

THE STALK: In the garden, the stalk should be sufficiently stout to remain upright without support. Most varieties now in commerce satisfy this requirement, if good cultural practices are observed.

GARDEN EFFECT: The value of Spuria iris in any garden depends on the other material being grown. Improper arrangement due to the the gardener's ineptness should not penalize the variety providing the foliage, stalk, and flower are satisfactory.

(Important: It must be realized that judging Spuria iris in the garden is not a one-look procedure. The variety must be seen during all seasons and should be observed in as many varied gardens as possible.)

PROGRESS IN BREEDING SPURIA IRIS

PHILIP G. CORLISS, Somerton, Arizona

Selection of the first dozen Spuria iris which I named and registered was easy. They were distinct breaks and to me, great improvements on anything heretofore available. Since then, I have indeed been "bewitched, bothered, and bewildered," to borrow the catch phrase from a popular song. To be sure that the clone selected is the best of its type, I keep several which show the desired characteristic, dividing and moving them to different parts of the garden where they will have variable growing conditions. Frequently they do not bloom at all the following year. A disheartening number fail to measure up to what I expect of them, perhaps because newer seedlings show the same characteristic with other superior virtues.

I will discuss breeding advances in the light of my own progress along color lines and other facets:

DARK BLUE: Blue iris fade more than others. Comparison of newly opened flowers with those which preceded them makes this obvious. Shade, of course, reduces fading, and the color is most intense when the soil is not depleted of minerals. All of my darkest blue seedlings were planted in full sun (and in southwestern Arizona we have the fullest sun in the world!) and observed for several years before Blue Mirandy was selected as the darkest blue without brown influence. Among the color classes, the blue Spurias are most susceptible to virus. The search for the best dark blue flower therefore also entailed a search for the healthiest of this group. There was no "trick" to breeding for the dark blue—I merely crossed all of the darkest blue named varieties and Nies seedlings. Incidentally, there were never any but blue seedlings from blue x blue crosses.

LIGHT BLUE: Although I care but little for blue flowers of any type, I have tried for better light blues by crossing blues with whites. Both White Heron and *ochroleuca* and their descendants served as white parents. The best blue parent has been Azure Dawn (Nies), and its lavender tones are not always transmitted to the seedlings. Some of these light blues are so pale that the blue color is noticeable only in early

NOYD'S 1958 INTRODUCTIONS

TALL BEARDED

- APRICOT DANCER—L to VL. Medium height. (June Bride X Temple Bells) a very lacy orange apricot self even to the beard. Flaring falls and lacy style arms\$20.00
- APRICOT DREAM—M to L. Medium height ((Reveille x New Horizon) x Apricot Glory) X Temple Bells. A deep apricot self even to the beard. Slightly ruffled and fragrant. \$20.00
- COTLET—M to L. Medium height. ((Reveille x New Horizon) x Apricot Glory) X Temple Bells. A light apricot self with a deep apricot beard. There is a pink flush around the beard. Falls are horizontal. Fragrant \$20.00
- FLAMING BEARD—L. Medium height. ((Buffawn x Loomis Pink Sdlg.) x New Horizon) X Salmon Shell. A peachy-apricot self with an amazing red-tangerine beard extending well down on the falls. Ripples at the sides of the falls\$20.00
- GREEN TINGE—M to L. Medium height. (Dixie Belle X Spanish Peaks) A flaring white self with green buds and green gold at the haft. Sibling to Angela Mia \$10.00
- LAKE CHELAN—M to L. Medium height. ((Plough's W-I Cream x Treasure Island) x Gloriole) X Chivalry. A deep blue self, even the beard. Lighter area around the beard \$20.00
- LILAC PARADE—M to L. ((Plough's Prairie Sunset x Cigarette) x Tell's 47-31) X Mary Randall. A large Persian Lilac self with a bright tangerine beard. A new color ... \$20.00
- ROYALTY VELVET—M to L. (Valiant Seedling x Ruth) X Queen Elizabeth. A very clean velvety dark red. Flaring falls and a golden brown beard. No venation Net \$25.00
- STRIPED BUTTERFLY—M. Medium height. (Butterfly Wings X Cahokia) This light blue self has dark violet-blue veins in the falls. The beard is yellow and there is a small amount of olive-ocre at the haft. Ruffled and flaring. H.C. '57Net \$25.00
- WENATCHEE KID—M to L. Medium height. (Brown Sdlg. X Firecracker) A very unusual blend of tan, burnt sienna, flame and green. Green line up the midrib. Slightly ruffled. \$20.00

OTHER 1958 INTRODUCTIONS

- FORWARD LOOK—(Murray) (Mexico X Glittering Gold) Most unusual. St. Light yellow-apricot F. Light brown-tan. Closed standards and flaring falls. Co-introducing with Geo. Murray of Covina, CaliforniaNet \$18.00
- GLACIER QUEEN—(Awalt) (Snowflurry X Golden Madonna) A huge long lasting, cool white from Midge Awalt of Hayward, Calif. This tall ruffled iris looks good here .. \$20.00

OTHER NOYD INTRODUCTIONS

ANGELA MIA ('56)	\$15.00	LEMON MERINGUE ('57)	\$10.00
APPLE CAPITAL ('57)	\$20.00	PINK MAUVE MOHR ('55) ...	\$ 7.50
A. Z. WELLS ('53)	\$ 2.00	PIN UP GIRL ('56)	\$15.00
CHIPPITICA ('56)	\$ 5.00	SAPPHIRE SEA ('56)	\$10.00
CENTER GLOW ('57)	\$10.00	SEVENTEEN ('57)	\$10.00
GOLDEN FLASH ('55)	\$ 5.00	SUN FESTIVAL ('57)	\$15.00
INKY BLUEBEARD ('56)	\$15.00	VALIANT OLA ('55)	\$ 1.00
LACY ORCHID ('57)	\$10.00		

NOYD'S IRIS GARDEN

1501 FIFTH STREET

WENATCHEE, WASHINGTON

morning and evening. You might think that the blue color had faded in the midday sun, but it resumes its pale hue as the sun goes down. Marjorie Tallchief is the best selection of this class to date, with wide flaring falls, heavily ruffled.

MEDIUM BLUE: Except for slight refinements in form, more ruffling, and the appearance of stalks bearing four pairs of buds on well-placed branches, there has been little improvement of seedlings in the medium blue class as compared to their parents. They are still subject to much fading and virus infection.

WHITE: The whites show more improvement than any other color class. Flower size, height, ruffling, branching, and floriferousness have all been increased. One of the most important advances has been the development of early and late varieties which greatly extend the flowering period for the Spuria iris. I have no explanation for the occurrence of seedlings which have unusually early or late bloom, for both White Heron and *ochroleuca*, the basis of all the white crosses, are among the early flowers, yet the last flowers in my beds are some of their children. White Ballet (which has an H.C.) is the tallest, and White Branch (introduced in 1958) has four pairs of buds on long twelve-inch branches. The latter was voted "Queen of Show" by judges at the Phoenix 1958 Iris Show.

YELLOW: We have come a long way from the species with the yellows. Gold Nugget and Sunny Day were the two principal cultivars to be seen in Spuria plantings until recently. The former has intense color, is a prodigious bloomer and of rapid increase, but has curled falls. The latter, winner of the 1957 Eric Nies Award, is lighter and smoother. We now have pale yellows and the most intense golds. Seedlings of Wadi Zem Zem often have a greenish tone. There are new flowers with true branching such as Golden Branch; large round form such as Gold Glory; offspring of yellow x bronze with dusky overlay such as Golden Spur; and the happiest combination of branching, intense color, perfect form, and delightful ruffling as in Golden Bath. Golden Beacon is notable in that it is one of the earliest of the Spuria iris to bloom, and its gold flowers provide an accomplishment to almost the entire procession of the other varieties. A clump, or even one stalk of it, is indeed a beacon of gold.

BRONZE AND BROWN: We always remember that Bronzespur was the most important parent in Eric Nies' work. The use of Wadi Zem Zem, Black Point, and Two Opals have added many improved flowers to these color classes. They are larger, better-branched, more ruffled, and vary in color from tan or coffee to dark gray-browns and rich chocolate browns.

BLENDS: Mr. Nies lost the parentage of Black Point, but he thought it came from dark blue x dark brown. Hoping to repeat such a distinct break, I crossed all available blues with all available browns. The resulting seedlings have been the most interesting in my work, and can be divided into several distinct color classes, in all of which there are variations in form, ruffling, size, and branching:

Right, GOLDEN BATH



GOLDEN BATH (CORLISS)



left, WHITE BRANCH (CORLISS)

(1) A "plum" color, with distinct veining. The one selected from this group for introduction is Marie Hunter, named for one of the most capable gardeners in our region, who bloomed this seedling for me in her garden. The flowers are large and of amazing substance, with arched falls. Its color is most exciting when it is fed heavily and given some shade.

(2) Gray-brown blends with blue-lavender opalescent tones, especially in the standards and style-arms. The most outstanding of this group is Dorothy Warenskjold, first of all Spurias to bloom, and of classic form and wondrous color. Viola Bray is similar in color but has airy, curled falls.

(3) Gray-brown bicolors. Of this group I selected Lady Burton as the best. The flowers are rounded and seem in best proportion to the stalk, which is not as tall as those of the two classes just discussed. It has a definitely new color pattern: the standards are gray-blue and the falls are medium brown.

(4) Amoena type. It is surprising how many blue-brown seedlings have a blue flower with a large brown patch in the falls which produces an amoena color pattern. The best of these I have registered as Pharaoh.

This year a ruffled "Pharaoh" appeared, and also some light blues with the brown patch.

Other blends have appeared from blue x yellow and other crosses. They are truly bewildering in variety—gray, green, lilac, and all the familiar colors with infusions of other tints.

BRANCHING: It has been interesting to select seedlings with true branches. From the six-inch branches of Golden Branch we have now progressed to a grey-tan pastel with one 21, one 17, and one 10-inch branch, carrying four pairs of buds to the stalk!

HEART-SHAPED FALLS: A characteristic of some of Mr. Nies' blue seedlings which has become more pronounced in development of his line in my work is the large indentation in the lower edge of the falls, creating an inverted heart shape. This has been carried from the blue seedlings to tan, bronze, coffee, brown, yellow, and white. More improvement must be made before any but the blues of this type will be released.

CORSAGE TYPE: To me the appearance of Blue Corsage was a "Divine gift," and entirely unexpected. This extraordinary flower, obviously a Two Opals seedling, will open four flowers at once on each stalk, each flower having a spread of up to seven inches. When the flower is fully open, both standards and falls flare to nearly horizontal. The color, exceptional ruffling, and unusual form contribute to an ensemble which has richly rewarded me for all of my work with the Spurias. I am now selecting flowers of this "corsage" type in the other color classes. Visitors often think Blue Corsage is an orchid!

DWARF SPURIAS

GEDDES DOUGLAS, Tenn.

Irisarians everywhere are familiar with the Spuria group, especially that section of it containing the large-flowered, relatively tall members grown for their beauty of foliage as well as for the flowers. Few, however, realize that in this division of the genus there are forms of dwarf and intermediate height. Breeders in the past have used the larger forms mainly, and the results of their work are just now beginning to show in new colors and flower forms.

Hybridizing efforts with the small forms have been practically nil, and it seems to me that this is one field of iris breeding that should be productive of new plants of wide appeal. Modern real estate development leans to the idea of a fairly large house on a relatively small lot. Modern architectural design leans to the contemporary ranch-type house with attendant patio or terrace, swimming pool, outdoor barbecue pit, spacious car port, and wide parking arrangements.

All of these things tend to cut down the space available for the growing of grass, trees, shrubs, and flowers. More important, this new type of home is changing the physical character of the plants which are popular with the public. Short, thick, fine-leaved grasses such as the new selected strains of Bermuda grass and the several forms of zoysia grass are replacing the bluegrass, clover, fescue, etc. of the past.

Small trees are in demand. While the sugar maple still remains the most popular shade tree in many sections of the country, nurserymen are conscious of a tremendous increase in the sale of small flowering trees such as flowering crabs, ornamental plums, weeping cherry, redbud, dogwood, the golden rain tree, the golden chain tree, Japanese magnolias, dwarf and espaliered fruit trees, and the like.

As to the shrubs used in modern plantings, the change is little short of revolutionary. Slowly but surely the needle evergreens such as the junipers and arbovitae are giving way to the evergreen broad-leaf types. Here again the emphasis is on the low, spreading, semi-dwarf type of plant of varying textures, particularly those that have the added attraction of interesting foliage, fall color, or berries.

The public's taste in flowers is following the same general pattern, dictated, perhaps, by the exigencies of the situation. Modern families are large, help is short. The young housewife of today gardens, but she gardens in a small area, doing the work herself. Usually her flower-growing is confined to small beds around a patio, or in raised planter boxes. Where grandmother had a yardman and grew sweetrocket, fox glove, and nicotinia, granddaughter grows dwarf marigolds, candytuft, and Blue Mink ageratum. Here again the emphasis is on smallness and neatness, and the fact that granddaughter is doing this herself adds a new point—ease of culture.

The dwarf Spuria should be a natural in such a situation. It is hardy, floriferous, easy to grow, neat, compact, and will thrive and bloom in the same place for years. As it exists today though, it is sadly lacking in color and form. This is where the plant breeder should come into the picture. Here is a whole new field of hybridizing that is wide open. It will require patience, thought, and perseverance. A person cannot simply go out and buy two iris from a "hundred-best" list, cross them, and come up with prize-winning seedlings for he will be dealing with species. Their characters will be set, locked up by nature, due to untold centuries of inbreeding, within the individual clone itself. To break this open and give these flowers new colors, new flower forms, and diversity of other characteristics will require considerable luck and ability beyond the ordinary. It is a great challenge.

Realizing that there is little information to be found in the literature which might be of help to anyone who might wish to try his hand with the above problem, and also realizing that Mr. Paul Cook probably knows as much about these little irises as anyone else in the world, I wrote him

a series of four questions which follow, together with his answers and comments:

Q-1 *Two dwarf Spurias are I. graminea and I. sintenisii. Will these two cross? Will either or both outcross to other species in the Spuria group?*

A-1 "I have wanted to hybridize the small Spurias for a long time, and still count on getting around to it; but the trouble is, all these small species bloom right at the time as the Tall Bearded irises when there are so many other things to claim one's attention. Cross-pollinating the dwarf Spurias is slow, tedious business, and it ought to be done by someone without distractions; and as you know, a Tall Bearded season can be quite a distraction. But I have a few cross-pollinations made between these early blooming Spuria species at that, and I count on making more gradually. I am giving my meager results as answers to your questions, and in the same order as you have them in your letter.

I think *graminea* and *sintenisii* can be crossed, and that both these species can be crossed with *halophila*. I would guess that they might also cross with the European forms of *Iris Spuria*. I know of no undoubted hybrids of either *graminea* or *sintenisii*, but there may be a few."

Q-2 *Have you tried any of the above yourself? If so, what results?*

A-2 "In 1954 I obtained a few seeds each from the following cross-pollinations: *sintenisii* x *graminea*, *sintenisii* x *halophila*, *graminea* x *halophila*, and *halophila* x *graminea*. There was no germination of seeds until the spring of 1956 when seven seedlings appeared from *graminea* x *halophila*, and two, from *sintenisii* x *halophila*. There was no germination of seeds from *sintenisii* x *graminea*, or *halophila* x *graminea*. No seedlings have yet bloomed and all must be considered doubtful, though from its wider leaves I hope one seedling from *graminea* x *halophila* turns out to be a hybrid. In 1957 I repeated the cross-pollination of *halophila* x *graminea* on a somewhat larger scale, obtaining forty-one seeds."

Q-3 *Are there any special instructions for the growing of the above two?*

A-3 "*Graminea* and *sintenisii* are both very easy to grow and require practically no care once they are established in the soil. They do not require frequent division or resetting. I have clumps of both species that have been growing in their original positions at least a dozen years. Neither species has shown itself to be particular as to soil or situation."

Q-4 *What other inter-species crosses have you tried? Any using halophila, spuria, monnieri, aurea?*

A-4 "I have made no spuria crosses other than those mentioned."

Mr. Cook continued: "Besides *graminea* and *sintenisii* I have two other small Spurias—*kerneriana* and *spuria maritima*. These are not as dwarf

as *graminea* and *sintensisii*, but they should be included in any hybridizing of dwarf *Spurias*. *Spuria maritima* is about fifteen inches tall and has blue flowers. In the two years I have had this small form of *Iris Spuria* it has grown and flowered well. Stems of *kerneriana* are about a foot tall, the flowers yellow. This iris has been a slow grower and poor bloomer here; in the twenty years I have had it it has flowered not more than a dozen times. But *kerneriana*, too, merits use in any serious hybridizing of the small *Spurias*.

"There are still other small *Spuria* species. *Urumovii* I have had twice, but both times the plant died without flowering. *Songraica* I thought I had once, but the plant was something else. This iris may not be a *Spuria* anyway.

"I agree with you these little *Spurias* are well worth working with. The hybridizing of the species at the beginning will be the hard part; after some fertile hybrids have been obtained, the development of the group should be more rapid. All the small species of the *Spuria* irises I am familiar with are quite different from one another, and even moderate crossing should bring much in the way of new combinations of characters.

"Crossing the small *Spurias* surely and effectively will require much more careful work than crossing the bearded dwarf irises. In these small *Spurias* it is difficult to get pollen from the anthers, and equally difficult to put it on the stigma of the other flower. Rigid control measures should be practiced."

RESEARCH MEMBERSHIPS AS OF MAY 16, 1958

Indianapolis Hem. & Iris Society,
c/o Kelly Pence,
3902 Fletcher,
Indianapolis 3, Indiana.

Dr. & Mrs. R. E. Kleinsorge,
419 East Main Street,
Silverton, Oregon.

Wisconsin Iris Society,
c/o Mrs. Donald Gregg, Sec'y
551 North 67th Street,
Wauwatosa, Wisconsin.

Mr. and Mrs. Geddes Douglas,
Hill Road,
Brentwood, Tennessee.

Mrs. W. J. Hinkle,
RR #4,
Marion, Illinois.

Mr. and Mrs. Jay C. Ackerman,
3535 Waverly Hills Road,
Lansing, Michigan.

Mrs. Ralph W. Williams,
10 Woodland Avenue,
Bronxville, New York.

Mrs. Anne M. Long,
Long's Gardens,
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Mrs. Francis Colt de Wolf,
3322 "C" Street, NW.,
Washington 7, DC.

Mr. and Mrs. Joseph H. Hoage,
1314 Stevens Drive,
Richland, Wash.

THE IMPORTANCE OF THE ABBEVILLES

C. W. ARNY, JR.*

The most important factor resulting in the development of fine present day Louisiana iris has been the use of the giant fulva type, commonly referred to as the Abbevilles, as breeding material.

These giants were discovered by Mr. W. B. MacMillan in a swampy area south of Abbeville, Louisiana about 1940.

The Abbevilles vary in height of growth about two feet to possibly four feet. The flowers of this group of iris have thick leathery almost overlapping petals and sepals of varying size and shape. The color of these iris ranges from yellow to crimson.

Style-arms are short with the tips of the anthers sometimes extending beyond the ends of these arms. The signals are usually a yellow line. Many times no crest is found at all.

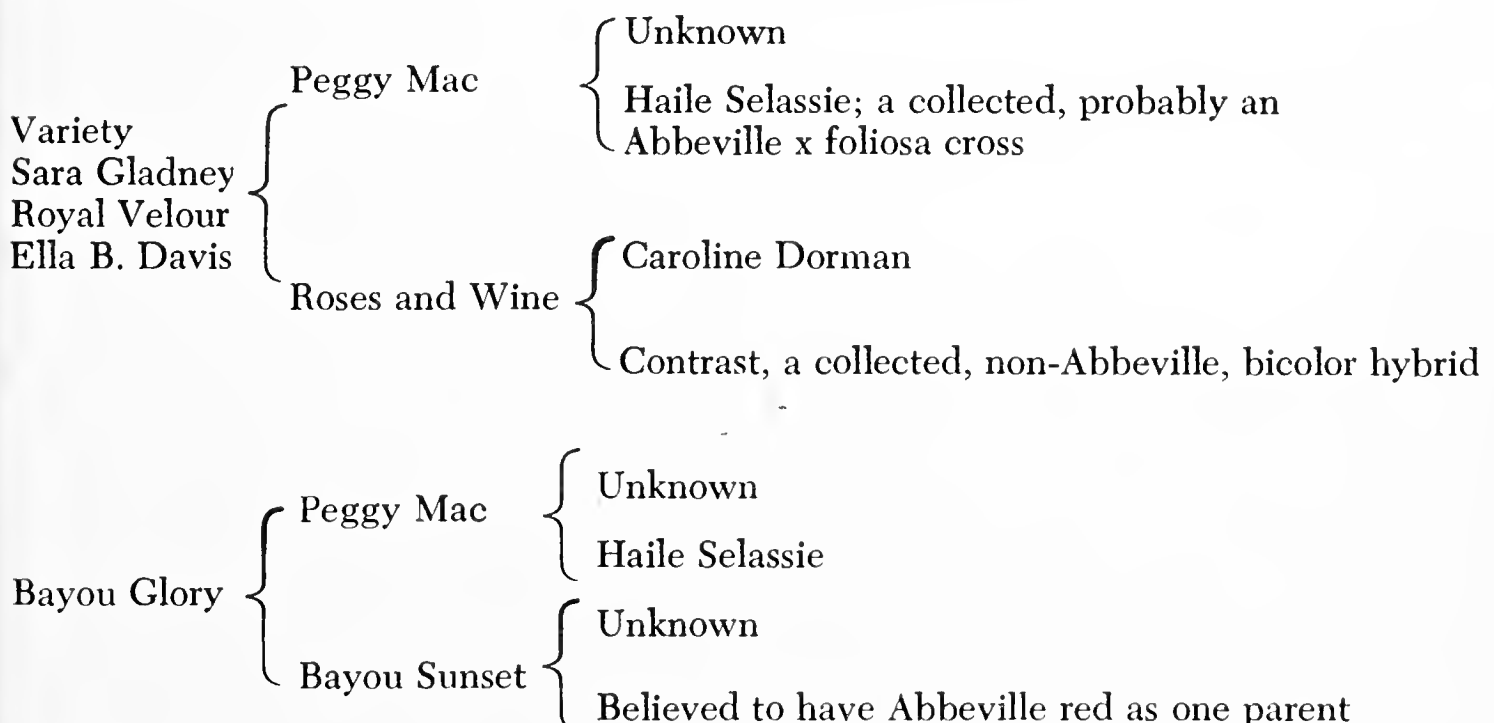
The foliage is yellowish green with leaves that have a tendency to droop near their ends.

Flower stems are straight to slightly curved and taller than the leaves of the plant. It is not uncommon to find branched stems. Flower buds are found in pairs at the nodes.

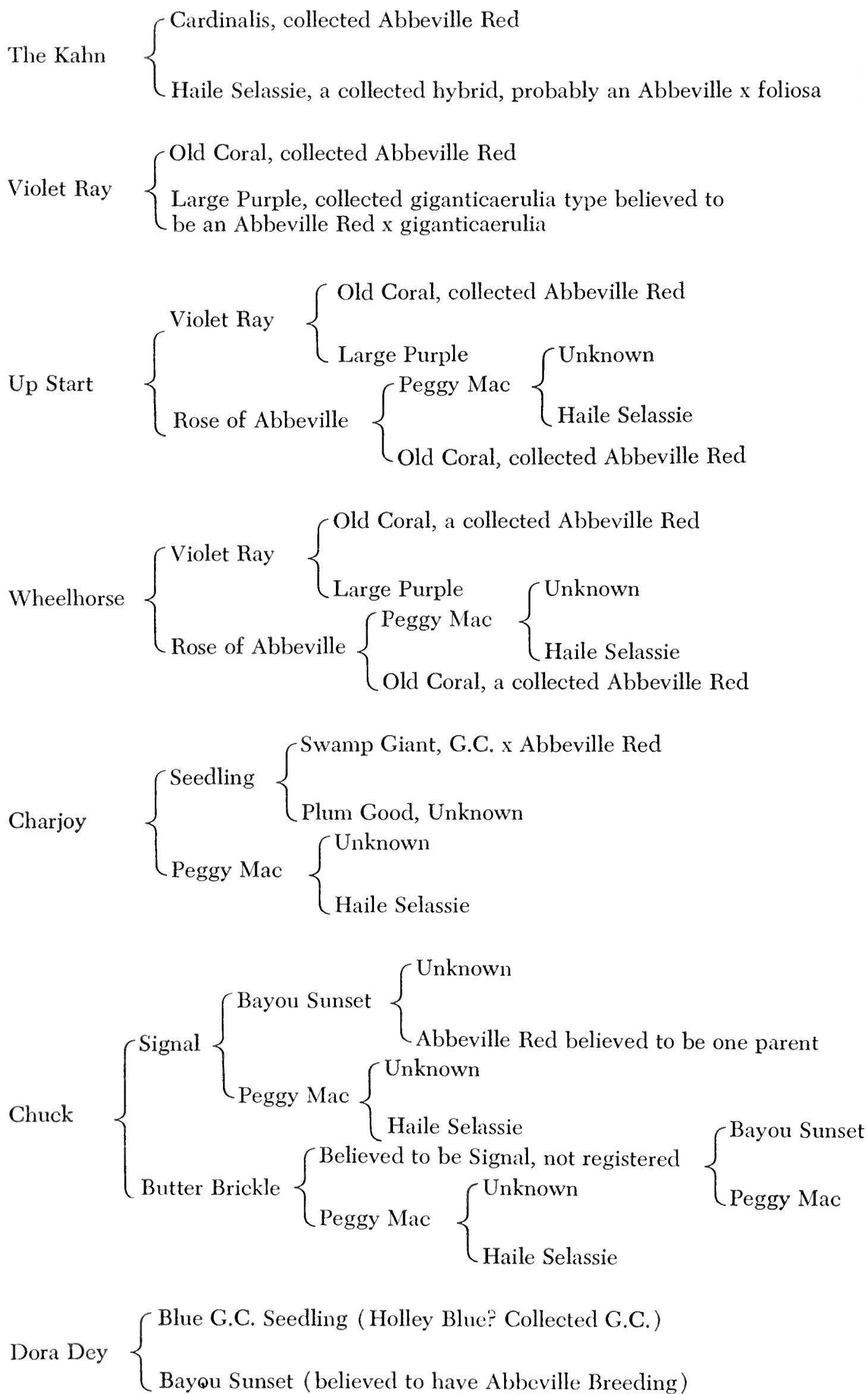
Examination of early registrations indicate that relatively few registered Louisiana iris were anything but collected species or their hybrids. In other words, breeding of Louisiana iris had not really made a start prior to the time these Abbevilles were found.

Evidence of the significance of this group of iris can be obtained from the study of the pedigrees since the discovery of the Abbevilles.

A list of recent favorites, might include the following of which pedigrees are available and printed below. The pollen parent is listed in the top section of all brackets, the pod parent below.



* The author gratefully acknowledges the contribution of Mr. Ira Nelson, Professor of Horticulture, Southwestern Louisiana Institute.



Puttytat	{	Dora Dey	{	Blue giganticaerulia type seedling
				Unknown
				Bayou Sunset, Abbeville Red believed to be one parent
	{	Dora Dey		

Cherry Bounce	{	B-4-12 Abbeville Red
		Contrast (not Abbeville type, hybrid bicolor)

Lockets Luck, Collected hybrid (non-Abbeville) fairly wide segments

Dixie Debutante	{	Maringouin yellow fulva x foliosa
		Lockets Luck

Delta Country	{	Dixie Debutante
		Maringouin yellow fulva x Kramer yellow (probably fulva x giganticaerulia in advanced stage)

From examination of this data, a number of interesting and important suggestions are noted. Peggy Mac is the most important single iris in the development of these fine Louisiana iris. If Haile Selassie is truly a parent of Peggy Mac, then this honor goes to Haile Selassie. We cannot be sure that Haile Selassie is a parent of Peggy Mac. Second, there is a predominance of the so-called Abbeville blood in most of the iris listed.

All of the following varieties have the Abbeville form to the extent that their flowers tend to be flat and have wide floral parts carrying width well to the base of each floral segment. The following iris all have collected Abbevilles in their pedigrees:

Haile Selassie	Puttytat	Rose of Abbeville
Peggy Mac	Signal	Charjoy
Bayou Sunset	Plum Good	Butter Brickle
Bayou Glory	Old Coral	Chuck

In conclusion, it appears that it was the Abbevilles that gave the real start to the breeding and improvement in our Louisiana iris.

Further, the presence of the flat flower form, branching, flower substance, rich velvety flower texture, and increased flower size can be attributed to a considerable extent to the Abbevilles.

It might also be noted that in practically all those iris that tend to have large, flat flower form, Abbeville breeding is involved, while those without the Abbeville blood may be large but do not possess the flat, full form or flowers with the wide floral segments throughout.

Chromosome Number and Meiotic Behavior in Commercial Varieties of Spuria Iris

HENRY H. HADLEY*

Commercial varieties of Spuria iris apparently belong to a collective taxonomic group which includes several different species. There is disagreement among iris taxonomists regarding the constitution of this group as well as other portions of the genus. In 1938 Westergaard (4) discussed the Spuria group in some detail and in 1953 Lawrence (2) published a suggested reclassification of the genus which included a Spuriae series. Within this series were at least five different species including the type species *I. spuria*.

It is not the purpose of this paper to consider the merits or the deficiencies of any classification of the genus. It is important to point out, however, that in all classifications with which the author is familiar, the Spuria group includes several species with different chromosome numbers. Some of the species which have been included in the Spuria group are listed in Table 1, together with their chromosome numbers where they are known.

The objective of the present paper is to report observations of chromosome numbers and behavior during meiosis in several commercial varieties of Spuria iris. It is hoped that, no matter what taxonomic classification of the genus may be correct, this information will be useful to Spuria breeders.

Materials and Methods

Specimens of Spuria iris varieties observed in this study came from the test gardens of the Spuria Iris Society of Houston, Texas. Young

Table 1. Chromosome numbers in some iris species included in the Spuria group.

Species	Chromosome number (2n)	Authority
<i>aurea</i> , Lindl.	40	Simonet (3)
<i>carthaliniae</i> , Fomin	44	"
<i>graminca</i>	34	"
<i>halophila</i>	44	"
<i>humilis</i>	72	"
<i>Kerneriana</i> , Asch & Sint	?	
<i>maritima</i>	38	Simonet (3)
<i>Monnieri</i> , D.C.	?	
<i>ochroleuca</i> , L.	40	Simonet (3)
<i>Sintenesii</i> , Janoka	16, 32	"
<i>songerica</i> , Schrenk	?	
<i>spuria</i>	22	Westergaard (4)
(both <i>danica</i> and <i>subbarbata</i>)		

* Associate Professor, Plant Genetics, College of Agriculture, University of Illinois, Urbana, Illinois.

anthers were collected during late morning hours and fixed in a fresh solution made up of 70 parts absolute ethanol and 30 parts propionic acid. After 24 hours the material, still in the fixative, was placed in the freezing unit of a household refrigerator. The aceto-carmin squash technique was used in staining and preparing pollen-mother-cell material. However, propionic acid was substituted for glacial acetic acid in preparing the stain.

Obtaining pollen mother cell material with metaphase I and anaphase I stages proved to be difficult. One reason for this was that the author was able to make but one collection of material. The flowering stalks of *Spuria iris* produce relatively few individual flowers. This reduces the range in stages of maturity and consequently the probability of obtaining the desired stage of meiosis at any one collection.

A few root-tip preparations were made. The smear technique was used on rapidly growing root-tips which had been pre-treated with a weak colchicine solution and macerated in hydrochloric acid. Aceto-orcein stain was used.

Pollen was collected at noon and checked for stainability in a solution of iodine in lactic acid. Except for one variety pollen counts were based on samples, containing from 200 to 400 grains.

Results and Discussion

Root tip cells were obtained with relatively good metaphase figures (figures 1A-1B). However, it was difficult even in cells with shortened, well-strained chromosomes, to determine the exact number of chromosomes. Interpretations of chromosome number in material from the same clone varied from 37 to 42. Because of this difficulty in interpretation and the desire to discover meiotic chromosome behavior as well as number, most of the cytological observations were made of pollen mother cell material.

For the most part meiotic chromosomes were excellent material for study. Late prophase in the varieties observed in this study was an exception in being a very poor stage for study (figure 2A). Generally both metaphase I and anaphase I cells were excellent for studying chromosome counts and behavior (figures 2B, 2C). Even stages of the second meiotic division were good. It was possible to make accurate chromosome counts in both prophase II cells (figure 2D) and anaphase II cells.

Chromosome numbers and percentages of pollen stainability are presented in Table 2. In most cases the chromosome counts were based on anaphase I cells but in a few varieties metaphase I cells were used since no anaphase were found. Unfortunately both pollen counts and chromosome numbers were obtained in only seven varieties. All varieties including *Iris ochroleuca* had a $2n$ number of 40.

Table 2. Chromosome number and percent stainable pollen in some varieties of *Spuria* iris.

Variety	Chromosome No. (2n)	Stainable Pollen Percent
Alice Eastwood		96.6
Azure Dawn	40	
Azure Fairy	40	
Big Cloud (Craig)		87.4
Bronze Spur	40	98.2
Canary Island		91.6
Cherokee Chief	40	88.2*
Dr. Annie Bestan		89.4
Dutch Defiance	40	93.3
Fifth Symphony		98.6
Golden Agate		96.0
Golden Nugget	40†	
Lark Song	40	
Michigan State	40	
Milliken	40	
Mount Wilson	40†	
Pastorale	40	93.6
Russet Flame	40	
Skyline		87.7
Sun and Shadow	40	100.0
Sunny Day		96.2
Sunnyside		96.0
Sweet Butter	40	
Two Opals		98.6
Wadi Zem Zem		81.0
Washington Hybrids	40	
White Crane	40	
White Heron	40	98.9
Iris Orhroleuca**	40	97.6

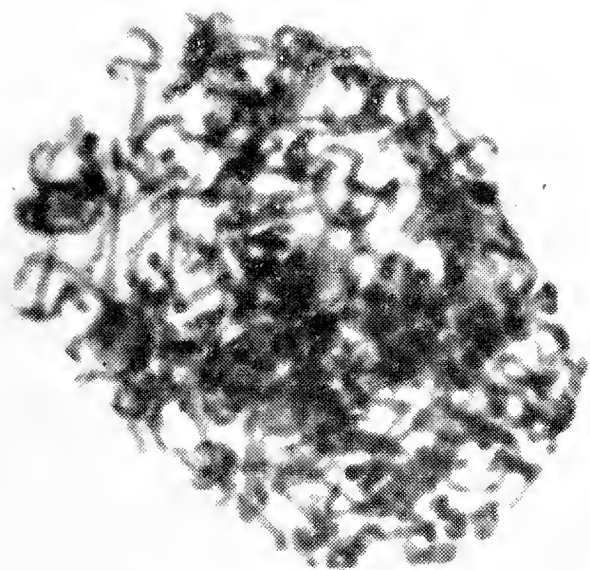
* Based on only 85 pollen grains.

** Pollen count and chromosome count on material from 2 different sources.

† Count based on root tip preparations.

As can be seen in Darlington and Janaki's Chromosome Atlas of Cultivated Plants (1) the 2n chromosome number of 40 is common in iris, particularly in the rhizomatous group to which the *Spurias* belong. Simonet (3) reported 40 chromosomes in *I. ochroleuca* in 1934. However, the previously reported number for *I. spuria* is $2n = 22$. This number was found in two collections by Westergaard (4). One collection was from Denmark and the other from Austria. Westergaard found that the morphology of the satellite chromosomes in root tip cells of plants from the two sources differed somewhat.

Figure 1.—root tip cell of Cherokee Chief interpreted as showing 37 chromosomes. B—root tip cell of Golden Nugget interpreted as showing 40 chromosomes. C—another root tip cell of Cherokee Chief interpreted as showing 38 chromosomes.



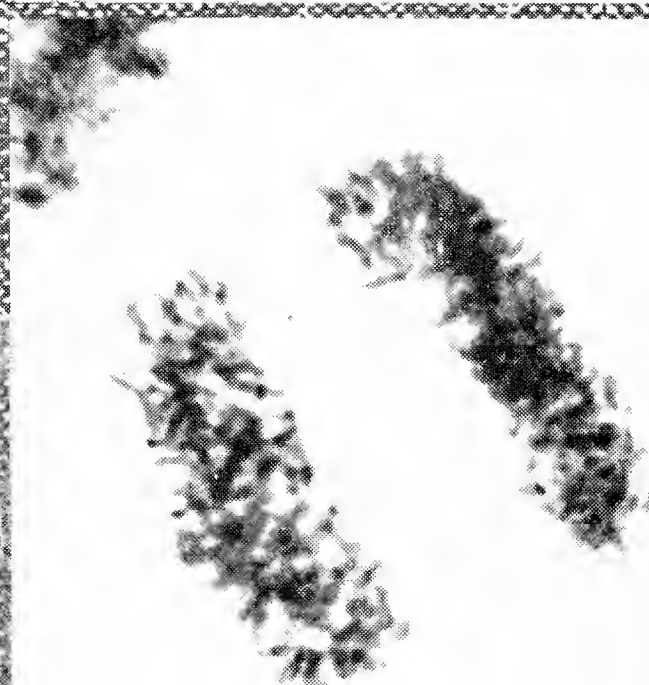
A



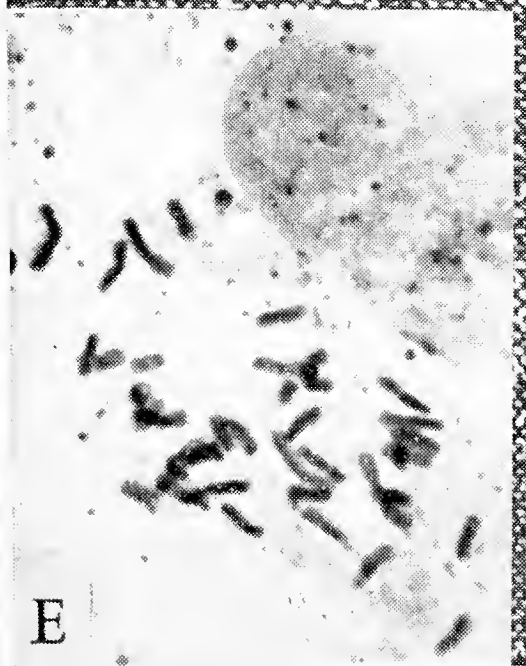
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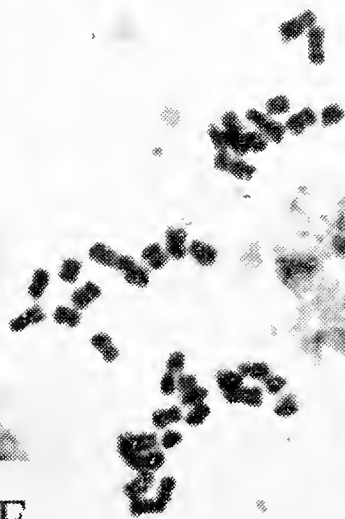
C



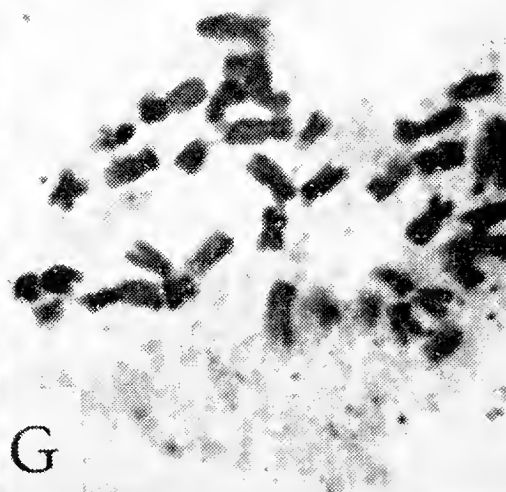
D



E



F



G

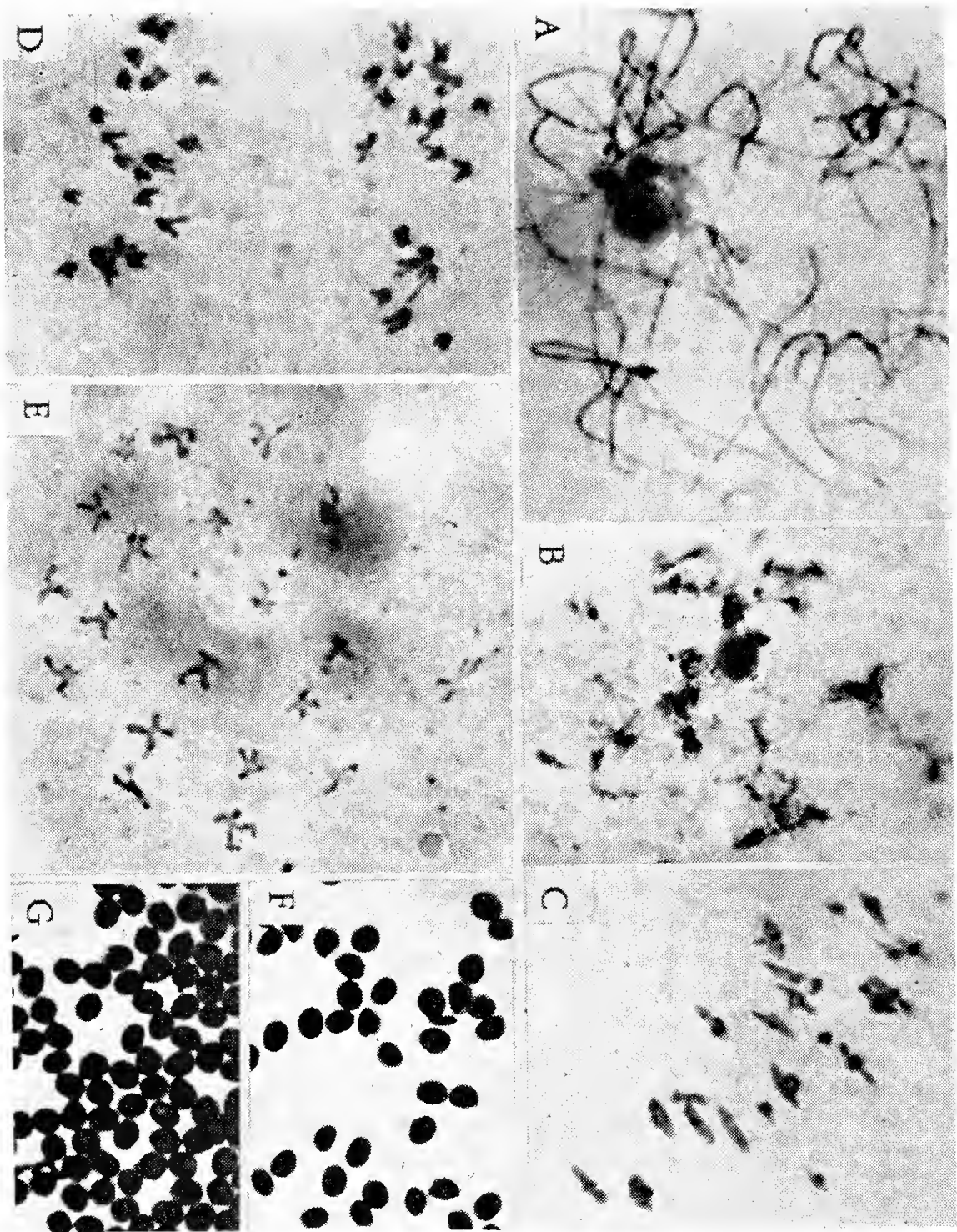


Figure 2. A—Diakinesis in Russet Flame. B—Metaphase I in Bronze Spur showing at least 2 univalents (I's). C—Anaphase I in Russet Flame showing 40 chromosomes in a 20-20 distribution. D—Prophase II in White Crane showing 20 chromosomes (In number). E—Pollen from White Heron. F—Pollen from Azure Dawn.

There is reason to believe that Spuria varieties observed in the present study are polyploid forms. In material from each variety where metaphase I chromosomes were found, from one to three quadrivalents (IV's) were observed. The frequencies of different types of chromosome associations at metaphase I in 7 different varieties are shown in Table 3. Material from the varieties Bronze Spur and Sun and Shadow was observed in 1957. Material from the others was observed in 1956.

Quadrivalents occurred in the forms of rings, "figure eights" and both "N" and "U" shaped chains (figures 3A-3E). The frequencies of the different forms of quadrivalents were not obtained. In general, considering the small sample size in material from some varieties, the average number of different associations was highly consistent over the seven

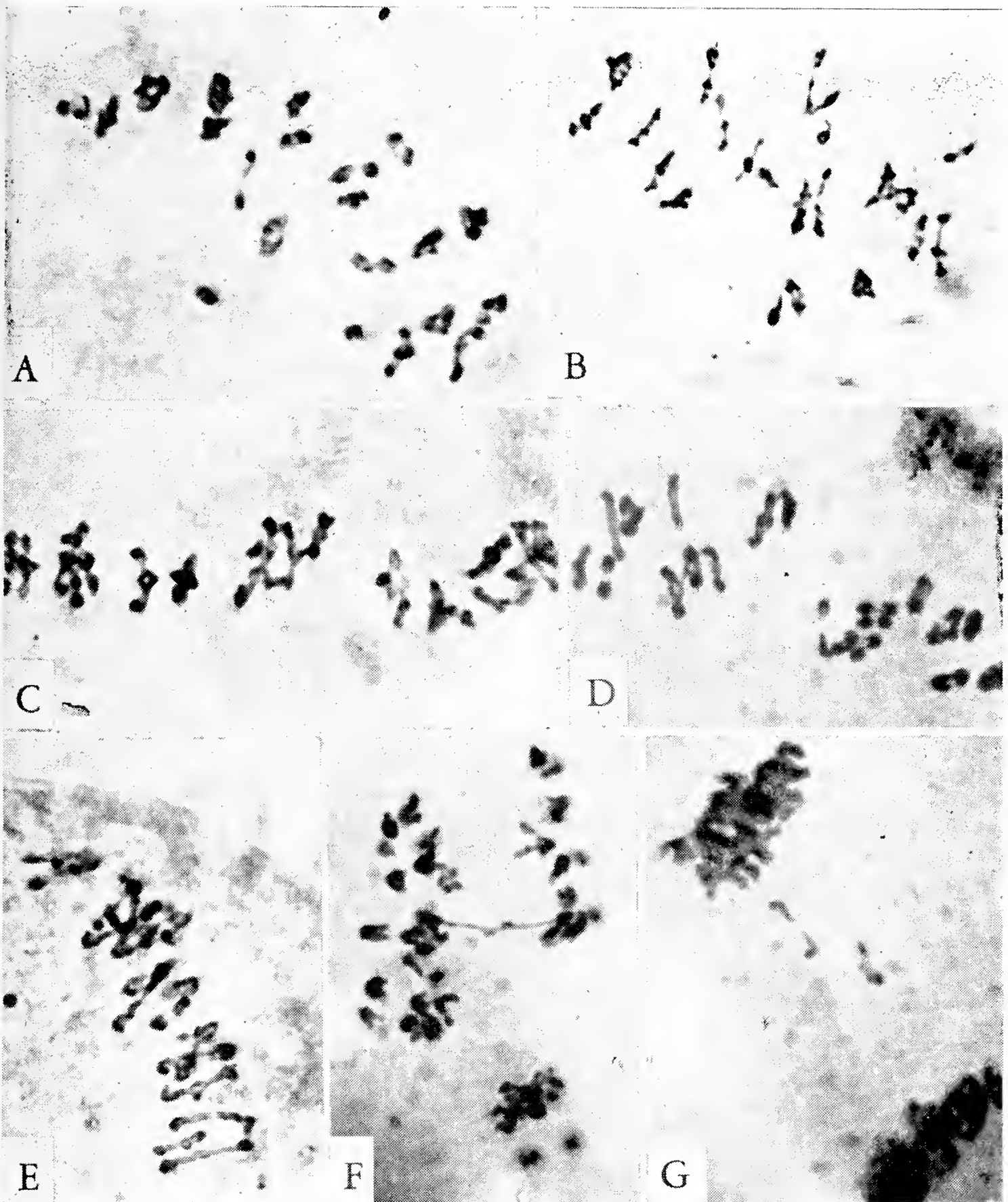


Figure 3. A, B, C, D, and E.—Metaphase I cells in Sun and Shade showing respectively 19 II's and 2 I's; 15 II's, 3 I's, 1 III and 1 IV; 11 II's, 3 IV's and 1 VI; and a "U" shaped chain of IV. F and G—Anaphase I cells in Russet Flame showing respectively a chromatin bridge and two laggards.

varieties. Still, one difference seemed to exist between the Washington Hybrid and Sun and Shadow. The Washington Hybrid had a higher proportion of cells with 19 bivalents (II's) and 2 univalents (I's) and a lower proportion with 18 bivalents (II's) and 1 quadrivalent (IV) compared with Sun and Shadow. Pastorale had a high frequency of univalents (I's) compared with the other varieties. Very few trivalents (III's) were observed. In fact, only one was observed in the varieties included in

Table 3. Metaphase I chromosome associations in seven Spuria Iris varieties.

I	II	III	IV	VI	Washington Hybrid	Sun and Shadow	Pastorale	Dutch Defiance	Bronze Spur	Cherokee Chief	Russet Flame
—	20	—	—	—	52	25	26	21	6	6	5
2	19	—	—	—	15	2	6	3	2	—	1
—	18	—	1	—	11	22	5	4	3	2	4
1	18	1	—	—	1	1	—	—	—	—	—
4	18	—	—	—	—	2	—	—	—	—	—
—	17	—	—	1	2	—	—	—	—	1	—
2	17	—	1	—	1	3	—	—	—	—	—
6	17	—	—	—	—	—	—	—	—	—	—
—	16	—	2	—	1	1	1	1	—	2	1
4	16	—	1	—	—	—	2	—	—	—	—
2	15	—	2	—	—	—	1	—	—	—	—
—	14	—	3	—	—	1	—	—	—	—	—
—	11	—	3	1	—	1	—	—	—	—	—
Total cells observed					82	56	46	29	11	11	11
Average	I				0.5	0.1	0.8	0.2	0.4	0.0	0.2
	II				19.4	18.6	19.0	19.5	19.3	18.6	18.8
	III				0.0	0.0	0.0	0.0	0.0	0.0	0.0
	IV				0.2	0.6	0.3	0.2	0.3	0.5	0.5
	VI				0.0	0.1	0.0	0.0	0.0	0.1	0.0
TOTAL					40.1	40.3	40.0	40.0	40.0	39.8	39.8

Table 3. Occasionally a hexavalent (VI) was observed (figures 3C, 3D).

It was thought that commercial varieties of Spuria may have arisen as allopolyploids or segmental allopolyploids from species crosses. Consequently as many anaphase I cells were observed as possible. More than 10 cells were observed in six different varieties. As shown in Table 4, with the possible exception of Russet Flame, the anaphase I stage in these varieties apparently is normal. In Russet Flame one bridge was observed (figure 3F) but in only one of 46 cells. No accompanying fragment was seen. Ten of the 46 cells had from one to three laggards (figure 3G). The laggards could be accounted for by the presence of univalents at metaphase I. One metaphase I cell from Russet Flame was observed to have 19 bivalents and 2 univalents (Table 3). However, the small number of metaphase I cells observed does not allow very definite conclusions on this point.

Percentage stainable pollen was high over all varieties and ranged from 81.0 for Wadi Zem Zem to 100 for Sun and Shadow. Sample size was not very large; however, it is interesting to note that two samples each of Golden Agate and White Heron were obtained by mistake. The two from Golden Agate showed 94.0 and 98.0 percent stainable pollen and the two from White Heron showed 98.6 and 99.1 indicating a rather high consistency in stainability.

As far as chromosome number is concerned there should be no difficulty in crossing plants from the different 40 chromosome varieties. However,

the origins of these varieties are unknown to the author. If the varieties have a recent common ancestor no trouble should be encountered in breeding programs involving varietal crosses. If they have widely different origins, trouble in the form of cytologically and genetically unbalanced individuals will probably result.

Table 4. Anaphase I behavior in six varieties of Spuria Iris.

Al Type	Russet Flame	Azure Dawn	Sweet Butter	Cherokee Chief	Lark Song	Bronze Spur
Normal	35	28	15	13	11	11
1 Laggard	4	—	—	—	—	—
2 Laggards	5	—	—	—	—	—
3 Laggards	1	—	—	—	—	—
Bridge (s)	1	—	1	—	—	—
TOTAL	46	28	16	13	11	11

Probably these varieties are tetraploid forms although it is not known whether they are allo- or autotetraploid. No detailed studies were made on seed set, but the varieties have been observed to set seed freely in the test gardens at Houston. At least there is no evidence of a cytological barrier to breeding programs involving the self-fertilization of plants within varieties.

SUMMARY

Chromosome numbers were determined for 17 commercial varieties of Spuria iris and *I. ochroleuca* which is considered a member of the Spuria group. All had 40 chromosomes. Chromosome associations at metaphase I included from 1 to 3 IV's and occasional VI's. In some varieties metaphase I cells with 19 II's and 2 I's were common. Anaphase I was apparently normal in all varieties examined except possibly Russet Flame in which one cell had a bridge and several had laggards. Pollen stainability for the 18 varieties checked was generally high ranging from 81 to 100 percent.

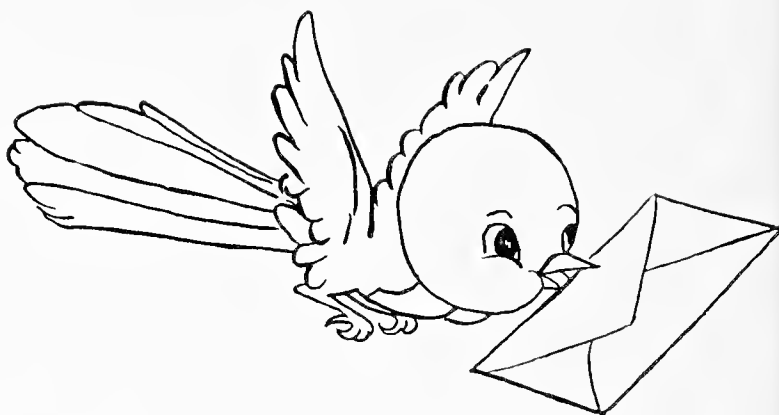
Although they probably are polyploid forms, the varieties examined for meiotic behavior apparently are highly stable cytologically. There is no evident cytological barrier to breeding programs involving either selfing of plants within each variety or crossing plants from different varieties. However, hybrids between varieties could produce unstable or sterile forms if the genomes of these varieties differ.

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FLIGHT

BY PEGGY BURKE GREY
NONA B MOTT



INES

Two New Robin Chairmen

National Robin Director John Bartholomew has announced the appointments of two new Division Chairmen. All applications for Robins in these fields of interest will go to them directly.

Tall Bearded Iris Division: Joseph H. Hoage, 1314 Stevens Drive, Richland, Washington.

Iris Photography Division: A. Edward Murray, Jr., 70 Kraft Lane, Kenwood, Levittown, Pennsylvania.

Good Medicine

The raising of iris is well known for its therapeutic value. Here's a report from Mrs. Gardner, Poteau, Oklahoma:

"My neighbor has been ill for five years. In February 1957 the doctor told her she might not live three months. In March my early iris began to bloom. My neighbor's bed was where she could see my small iris patch. Each day she could hardly wait until daylight to see what would be in bloom. When Twilight Sky opened one dawning, she called me and wanted to know what it was called. I guess she called all her friends, because there were so many visitors that day. It looks like the good Lord must have blessed it. It bloomed throughout the season; even the adverse weather didn't stop it. This little report has a good ending too. My neighbor told me that as she watched my iris bloom and others coming on she made up her mind that she would get better and if at all possible put out some iris herself. She IS better and last year when I dug my iris I was proud to have some Twilight Sky for her to start. She is able to be up all the time now. She still isn't well but she has a new lease on life."

Round-the-World Robins

Peru Reports:

Sergio Isola T., "The robins are a successful idea to promote good fellowship through the members of the AIS in the world. We do not have frost and snow, and only a little rain. We have irises all the year round and I think we can grow any kinds of irises."

South Africa Reports:

George Mace, "For the past five years I have accumulated rhizomes from all parts. Have had no particular luck with the part-Oncos. They do not like my sandy hillside, while such as *I. gatesii*, *susiana*, and the other desirable Oncos simply lie down and die. But I am doing reasonably well with the Tall Bearded, of which I have tried out over fourteen hundred varieties of one sort or another, ranging from Dauntless to Queen's Taste, from W. R. Dykes to Full Reward, and from Souv. de Madame Gaudichau to First Violet. Am busy nowadays discarding the 'not-so-goods' in a fairly wholesale sort of way and replacing only with the latest and best."

Australia Reports:

Norm Moller, "Have Golden Flash out at the moment (March), also a seedling of Blue Rhythm. This flowered in November and is flowering again now. Last year Happy Birthday flowered in February, July, and December for me. As I have had it for three years, it should be acclimatized by now."

New Zealand Reports:

Eric Bell, "Hope all of you in the Northern Hemisphere had the White Christmas that you always wish for. Personally I couldn't think of anything worse! We had a beautiful, fine warm summer's day with swimming, the chief occupation."

"The section is about three-quarters of an acre and I have it all under cultivation, mainly bulbs of all sizes and shapes. My preference is for small bulbs though, suitable for a rock garden which is the main feature of our section. Although I grow quite a few different irises my chief interest is in the bulbous section. I have fifteen different *reticulatas*, nine different Dutch, five different Junos."

Albert Claridge, "My location, Wellington, by the sea, is ideal for Tall Bearded and a wide range of species, many of which I grow. Temperature range 45-85, about 30 inches of rain per year, no snow, frosts very rare."

Canada Reports:

Albert Ellis describes his garden, "On the left, two beds 55 feet long, 7 feet wide, with gravel path in center. These beds were dug 18 to 20 inches deep, equal parts of clay, peat, sand mixed; underneath this mixture, 24 inches of sand, so I should have good drainage. The entire place on the fence line has ramblers, old timers and the new ones. This makes a nice background for all the plants. Am now working on the irises to keep them blooming through our season which is from May to late November."

Holland Reports:

Dr. Van Veen tells us of some of the attractions of his small town: "... a gem of a seventeenth century town hall and a beautiful cross-shaped cathedral in Gothic style with renowned acoustics and seat of

the Bach society in the Netherlands. Some fifty years ago, most of the surroundings were shrub and rose nurseries. This soil is heavy with a high black peat content. The country is, of course, very flat, and there is no shelter against winds battering the shores. Though Holland produces quantities of irises, most of them bulbous, for export, there are very few people interested in the bearded irises. Near Haarlem I once saw a field of hundreds of *I. gatesii* together with a large area of *Oncocyclus* hybrids growing there."

Germany Reports:

Dr. Goithe is a "great flower lover from early years; bought in 1909, arable land in Lihtenrade. At that time roes and stags were not seldom seen there. The nature was free, also my garden, where I have had all current flowers. Now I am breeding irises. I have made also faults in hybridizing like many people, but no man is his craft's master the first day. I am breeding also *Lupinus polyphyllus* hybrids, a very good partner for Tall Bearded irises, and I have a strain which is very hardy, having the tendency to scarlet."

Dr. Goithe writes of iris breeding, "The selection begins already in the choice of the single blossom, and pollen is not equal pollen: established varieties have other pollen than fresh planted irises or weak clumps. Beginners and many advanced breeders make the same faults of using or sending pollen to other breeders which is not viable for the desired effects. The sending away of such pollen shall be always problematical, and the older hybridizers, the Sass brothers, etc., knew all about it. The pollen from weak, not established plants gives 'sparrows.' Only pollen from a real breeder (iris) is fit for use for higher purpose, and the sending of pollen must be correct. The enthusiasm alone makes no better irises; breeders are no teenagers, and iris breeding is an intellectual affair, is a way to higher planes in nature."

Popularity Poll

I think an interesting project would be for us to give critical analysis of the iris listed in the Popularity Poll and the HM and AM winners listed in the October issue of the Bulletin. The Popularity Poll is the voice of our entire membership. Yet the top iris, Truly Yours, received only 728 votes. This means to me that not enough of our members are sufficiently interested to vote. Are there any on this list that may not do well in your section? Are we influenced by the names of the hybridizer and the color plants in the catalog? Many of the iris listed do well in Memphis and should be on the list. Others are undeserving, at least in our section of the country. I certainly did not include Truly Yours on my list. It was really beautiful this year, but here it does not bloom every year. It has its good year and its bad year, and for any iris to be on the Popularity Poll for me, it has to be a consistent bloomer and have all the characteristics that one expects in a good iris.—JAKE SCHARFF, Memphis, Tenn.

I do think the reason more members do not vote in the Popularity Poll is because they haven't seen enough of the newer things and feel it isn't important to vote for the ones they have seen and liked. Truly Yours grows very well here. Tall, vigorous and has a profusion of bloom every year. I love it and can find only one fault: its branching is high and rather bunched.—MARY ELLEN KNOPF, Campbell, Calif.

No use to rave to garden clubbers who are not irisarians about the fine ones that "ain't there"; can't blame them for not understanding, so just show them a huge clump of a good old faithful in all its glory, and they'll go home happy and not worried over your mental condition! Give them four or five that you know will bloom and I'll guarantee that you'll have some converts. Iris are like Cocker Spaniels, you just can't ignore 'em!—MICKEY KIRBY, Norfolk, Va.

Tall Bearded Beginners List Their Favorites

Many beginners have a difficult time deciding which iris to buy (they all sound so wonderful in the catalogs), so Myrtie Churchill, South Portland, Maine, compiled a list that made outstanding performances for members of her robin. She heads her own list with Spring Romance with its heavenly fragrance. Next she likes Melodist and Jasmine.

Tiffany, as a large clump, was very showy with excellent substance and branching. She likes Melody Lane, Heritage, and Argus Pheasant.

Lady Boscawen produced one huge flower with four standards and five falls.

Helen McGregor was a disappointment as it didn't stand up in sun, rain, or wind. Pierre Menard, Wabash, and Good News were fine.

Dream Castle and Casa Morena have failed to winter through for two years, and apparently they are much more tender and require mulching.

For Martha Lazenby, Fort Lawn, South Carolina; Truly Yours, Palomino, Apricot Supreme, Melody Lane, Maytime, Quicksilver, Port Wine, Mystic Melody, and Pink Formal were unusually pretty.

Mrs. Sam Burnett, North Sacramento, California, states that Heigho was six feet tall, with perfect branching and substance; Cloudcap showed falls which were too long. Ruth was very beautiful but did lack substance to hold up in the hot sun. She liked Helen Collingwood, Butterfly Wings, Taffy Brown, Savage, Court Herald, Majorette, Happy Birthday, Frosty, Gay Border, Leading Lady, and Congo.

Richard Pettijohn, Pittsburg, California, reports several of his iris had extra standards or falls last year. Rodeo was the worst offender but also put on the best performance in his garden. He was also especially pleased with Plum Pretty and Moon Goddess. Both bloomed on short stalks but the coloring was very good, although Moon Goddess faded slightly. June Bride had pleasing color but the flowers were rather small and the falls a bit narrow. Others doing well were Oriental Glory, Desert Song, Color Carnival, Elmohr, Gold Sovereign, Lady Boscawen, and Pretty Quadroon.

New and Near-New

Black Taffeta does not grow much taller than 24 inches for me, but I feel that the beautiful form and color, plus its velvety texture, more than make up for its small stature in the perennial border. I would rate Black Taffeta as one of the very best of the so-called blacks.

Sable Night has proven very tempermental in the St. Louis area. It is a slow grower for me, only three increases on a two-year plant. The first season after I bought it, it showed no increases and luckily no bloom. This year it bloomed so I was able to make some crosses.

Blue Sapphire put on the best show of all my iris this year. It is a strong grower with nice foliage, and a prolific increaser. What a beautiful color accent a big clump makes in the border!—MARVIN OLSON, St. Louis, Mo.

Frost and Flame seemed to me a real beauty with its white body and tangerine beard. I suppose its offspring will revert back to pink.

Tranquility is one to give me some new blood for whites, and I like this better than any I have seen.

The Extravaganza—Helen Collingwood motif I think has great garden quality, and Catherine Claar is by far the most exciting development along these lines. Another thing I have always found is that this strain is amazingly fertile. I know of no other varieties on which I can set as many pods.

Inca Chief and Fluted Copper will give me another point of departure in my brown breeding. Thotmes III and Pretty Quadroon don't seem to lead me anywhere.

Nice clear yellows appeal to me, and Chinese Lantern was one I liked.

Dark Boatman has sprightly form and better size than most of the current dark blues.—GEORGE BEACH, JR.

Blue Freckles is a very delightful deep blue plicata and the markings are just like pepper splattered on it.

Violet Ruffles, just as the name implies, has the typical Schortman heavy ruffling.

Royal Plume is a violet-red self that didn't appeal to me as much as the others.

Emerald Bay is a very large greenish white, very similar in shape to Cloud Cap, but much better substance.

Pretty Redwings is quite the reddest thing I have seen and has a nice flare.

Memphis Lass is a burgundy and white plicata that should be destined for great things.

Gracious is a fine addition to the dark purples and should be fine in black breeding, with its background. This is one I really have high hopes for.

Iristocrat is a large ruffled cream with yellow at the haft and a bright yellow beard. On its home grounds it was superb, but I understand in

Washington on a first-year plant, as a guest, it was pathetic.

Fire Flurry is just for the hybridizers. It has the dash of fiery brilliance in an established clump but is actually unfinished as a garden variety, if you are looking for perfection.

Mallow Lace is similar in color to Mary Randall but has lacing. The lacing doesn't improve it much.

Tropicana reminds me of many other wine-colored fancies.

Buddy Mitchell is a very fine Regeliabred from the Hoogiana side of the family tree. It is very similar in color and shape to Hoogiana but has branching and terminal buds.

Mohrning Haze is a grayish lavender with a thick Onco-ish beard and a very slight signal patch.—RALPH GEYER, Los Altos, Calif.

Mrs. Dorothy McCashin of Lower Hutt, New Zealand gives her opinions of some American introductions and how they're performing for her "down under":

Clara B. shows no substance. June Meredith shows poor substance for her, though seedlings from it crossed to her own are tough and a better color for her. Al Borak fades and flops, while both Utah Cream and Palomino are tops for weather and rain. Rehobeth has good substance and does not fade. Windsor shows good flaring form. Privateer is more red-brown; she thinks it too short and bunched. Dorothy prefers Belle Meade to Caroline Jane in the blue plicata class; she likes Violet Harmony better than First Violet. Of the whites she thinks Snow Goddess good and likes Cascadian and Tranquility; Cliffs of Dover is rather short and Wedding Bouquet short-branched, but still very good. Temple Bells, Apricot Glory, Apricot Supreme, and Top Flight are all good breeders for her.

Some Companion Plants

Regarding flowers to plant in mixed borders with iris: perhaps our solution to interplanting is not the best, but it works fairly well for us. When the iris are in bloom we also have the tag ends of tulips, mostly parrot, peony, and lily flowered. We also have a few dornicum; Jacob's-ladder is a very effective low edging combined with dwarf sweet William. The taggetea achillea with its soft yellow makes a fine plant for directly behind the edging flowers. The McKana hybrid columbine is easy to grow from seed and looks wonderful in a garden picture. The bush clematis is most attractive in a mixed border; it reminds me of orange blossoms, and looks wonderful with iris in an arrangement. We have quite a few poppies in our border. As long as the colors don't clash with the iris, they are excellent to provide a change of pace. They bloom here the same time as the iris. The new anemone and winter-hardy spider chrysanthemums are particularly interesting. They mix well with iris in perennial borders.—HARRIET WEYKER, N. J.

Have you ever used dictamnus, commonly called gas plant, with your iris? It is a lovely perennial in pink and white. When well established

it will live many years. Columbine also go well with iris. For borders, we have used violas, old-fashioned sweet Williams, and carnation pinks to great advantage.—MILDRED BRIZENDINE, Topeka, Kan.

The Case for Disease Research

It seems, as hybridizing continues, we are having more and more disease and insect problems. I hope that with the new impetus given our Scientific Committee that we can lick some of our worst problems—JAKE SCHARFF, Memphis, Tenn.

Here in northern Minnesota we had a lot of rain from May until right up to the end of November, freeze-up time. I started a program of spraying my iris from early spring right through with a good general garden spray and some dusting of the plants on the ground or near the ground with Captan. Our leaf spot, rusting and something on the nature of scorch (although I am sure it is not that) was very minor. Others that did not have a program had a great deal of these troubles. I am wondering if we may not be wise to have a regular spray or dusting program for our iris during the summer months. I know I shall do this again this year. If we have a dry year the need will not be as great, but these wet seasons are a different story.—HAROLD THOMFORDE, Crookston, Minn.

A sharp lookout throughout February and March really pays off. This is the time one can catch winter heaving and winter rot. If I find heaving I push the rhizome well back into the ground, or if the ground is frozen, I take a small bucket of soil and mound over the heaved iris. If rot is discovered we bring the rhizome inside and operate on it by cutting away all the rot to solid flesh, then wash in detergent, then let it dry for a couple of days, then replant using a potted mixture of soil in a pot to fit the rhizome. Keep this inside in breezeway, garage, or cool room. This way we almost always manage to save the plant. Sometimes there were only nubbins left after the rot was removed, but we are always jubilant when we save a plant this way.—BONNIE DUNBAR, Indianapolis, Ind.

I'm going to fumigate a plot of ground 20 by 50 feet with Vapam, to be used next year. The glad growers are using it with good results in controlling glad bulb rot, so it might help with our iris rot troubles.

Last year I used veterinary-form aureomycin. It was applied to thirty iris, each with a dose of antibiotic and Captan in the fall as a preventive measure. A number had the bloom stalk frozen this spring, so a second application was given. New bloom stalks came from the original place and one iris had five. All bloomed a little late and small. As to increase, Palomino had the most with fourteen, five of them blooming. Blue Sapphire, White Peacock, Mary Randall, Arabi Pasha, and Sable Night had seven to ten increase. Happy Birthday sent up one stalk with five branches, looked like a rose. Dreamy and Sky Tint were covered with a grey mold with the clump half rotten. When I used this solution the mold disappeared overnight. Now I have two nice fans of each—ELSIE HENKE, Boise, Idaho.

We have a very heavy gumbo soil which is difficult to keep rot out of. We therefore grow the iris on terraces and in planting try to plant the rhizomes very close to the surface. We use a nice covering of wood shavings. These shavings keep the hot sun from the rhizomes and keep the soil from baking into a concrete-like cake. Most people don't believe in mulching but it works for us. We have large blooms on strong stalks, also good increases, and by using a copper sulphate fungicide do pretty well in controlling rot. The worst problem we have is mustard seed fungus. It loves iris and we fight it constantly. We planted one bed in soil which had been sterilized with vapor and the rhizomes soaked four hours in a 1-1000 solution of bichloride of mercury. We had over a year of freedom from mustard seed, but now we are getting it there.—MRS. LUTHER, Los Angeles, Calif.

For Better Roots

The old roots on iris, after being disturbed, do little or no work, and by cutting them off you encourage new roots to grow that are real workers. I have had to move iris in October to make improvements in the garden and found new roots eighteen inches long on plants that were divided and root-pruned in June.—JERRY WALLACE, Batavia, N.Y.

I tried a new experiment on new iris. I soaked the rhizomes in a solution of Rapid-Gro overnight, then watered them down with this solution after planting. It does seem to stimulate quick root growth and development.—MRS. R. H. LASCHINGER, Gilmer, Tex.

I've used Rootone on some rhizomes that were so dry and shriveled there was hardly a root left on them. They were soaked in water overnight, then dusted underneath with the hormone, and planted. In two weeks they were doing better than some of the fat husky ones planted at the same time.—MRS. MARY HALL, N.Y.

Problem Solved

An acre we wanted to plant in iris grew up with Johnson grass. In our Dallas Hybridizers Group we heard of a way to kill it. Someone said, if we would have the land plowed up when "the sign was in the heart" in August, the grass would die. We hunted for a month to find an old almanac to find when the "sign was in the heart," and finally learned that August 23 and 24 was the date for 1957. Well, we had it bedded and re-bedded and the Johnson grass dried up and you never saw so much compost in a field. I am sure there will be some up from seed, but those long white roots will not bother us anymore.—MRS. IVAN HARRELL, Dallas, Tex.

And Unsolved

Nut grass is a pest down here. These nuts may lie dormant for several seasons, you think you have the situation well in hand, and when you work up a bed they come back to life. Anyone have any experience with nut grass and know how to get rid of it, PERMANENTLY?—JAKE SCHARFF, Memphis, Tenn.

Briefs for Breeders

Hybridizing is something like dope. Once you start there is no stopping!—GLENN CORLEW, Fresno, Calif.

My special interest in breeding is brown, which is, perhaps, the most unrewarding field of them all. A plateau seems to have been reached in this field, and we are all looking for some way to push ahead. Some feel it will come from a line starting from white x red; some feel from pink x red. Sooner or later the break will come.—JAKE SCHARFF, Memphis, Tenn.

Work in the field of browns has not given any great reward to me. I think I could say they have been a disappointment to me as a whole. It seems when I get a good brown color I have a plant that grows short, poor branching, and the flowers are bunched up. When I get a good length in the plant I lose the size of flower and some of the other things I am looking for. Inca Chief makes only a short plant with me and is disappointing from that standpoint, but I think it has a shade of color that appeals to me, especially when the sun hits it just right. Therefore, I will use it for several generations on one line of my seedlings and see if we can get any kind of results.—HAROLD THOMFORDE, Crookston, Minn.

If you want a good parent for pink bicolors get a lot of Lottie Lembrick. Good for form, too. It has always been called a lilac bitone, but for us it has very pink standards and medium lilac falls.—BEN HAGER, Modesto, Calif.

I've had iris for six years and only recently tried crosses. I made a cross of Ola Kala x Vatican Purple, which resulted in a blended seedling that produced little thorn-like points the length of a pencil-point, which show up on either side of the standards about center. If I should register it, I may name it Crown of Thorns!—REV. CUNNINGHAM, Murfreesboro, Tenn.

I like the idea of investigating the effects of a dominant white, a recessive white out of plicatas, and a recessive white out of blues. It is not the use of dominant whites that interests me at the moment, but those of a recessive nature. And it is from the use of these recessives that our biggest median breaks have come so far, namely the plicatas.

There are two elements which seem to handicap the majority of us in regard to recessive whites out of plicatas and blues. To begin with, we have only a handful of each to utilize as parents, and if you doubt this, just check your catalogs and you will find it to be true. The list of recessive whites out of blues goes something like this: Front Gate, Senorita Ilsa, Frost Glint, and a few others. The recessive white list out of plicatas is just as small. There should be more of both among the Tall Bearded class, but the majority of these are not introduced due to some plant fault. The second element that is lacking in the use of these recessive whites is breeding information on the subject. How I'd like to read an article that goes into detail on these recessives!—JOE GATTY, Jersey City, N.J.

This past summer we purchased about thirty of the top, early dwarf varieties which we will use for further work in hybridizing, not alone for dwarfs, but as you all know some very interesting things are being done by crossing them onto the Talls. Frankly, I wonder if some of our most interesting work in new color is not going to come from that field. I don't mean in my particular work, but in the iris work of this nation.

—HAROLD THOMFORDE, Crookston, Minn.

A Bibliography for Iris Students

Lys Houseley has compiled an interesting list of books that are useful in an irisarian's library.

Beginning hybridizers will find a good start in genetics with *Practical Plant Breeding* by W. J. C. Lawrence.

Lys notes: "A very easy book to read on genetics is *Genetics Is Easy* by Philip Goldstein. It discusses blood types and animals as well as plants, but is much more understandable than many other books of similar subject matter, which are too complicated for the beginners, or even for those who have had an introduction to genetics in school."

Beginning texts can be followed by *The Genetics of Garden Plants* by Crane & Lawrence.

Genetics and the Origin of Species by Theodore Dobzhansky is an advanced text as is *Variation and Evolution of Plants* by G. Ledyard Stebbins.

Others include: *Understanding Heredity* by Goldschmidt, which is available through the AIS Central Office; *Genetics* by Walter; *The Evolution of Plants* by Jens Clausen; *Fundamentals of Cytology* by Sharp; *Chromosome Atlas* by Darlington & Jamal; and *Genetics of the 20th Century* by Dunn.

Walter Welch notes: "The works of Dykes are classics of iris literature. His large monograph, *The Genus Iris*, is on the want list of every irisarian but is difficult to find today. If one persists, one can find his *Handbook of Garden Irises*, *Dykes on Irises*, and the smaller volume *Irises*, with color plates of excellent quality."

Lys briefly reviews *Tall Bearded Iris* by Moore which she obtained from her public library in Denver: "It consists largely of varietal comment and therefore will date quickly, especially as it is from England and already seems to be a little behind us. However, it will come in handy for checking on descriptions of older iris that show up in pedigrees. The author's ideas on form are quite at variance with our American standards, and some of his recommendations of plants for both breeders and connoisseurs are things which we already consider outmoded in this country. It nevertheless is interesting for what it is."

Also listed for interesting reading are: *The Book of the Iris* by Lynch; *The Iris* by Wister; *Iris and Its Culture* by Stevens; *Iris for Every Garden* by Mitchell; *The Iris* by Cave; and *Half Century of Iris* by McKee & Harrison.

Public Gardens

Our Ketchum Memorial Iris Garden, of six and a half acres, is a public planting under the supervision of the Memphis Area Iris Society. In this planting we have twenty-six beds, and you will find practically everything in the catalog, including the newer introductions. The first increase from the new ones we buy are contributed to the garden. Just west of our garden the Memphis Rose Society has its formal plantings, and to the south, the Men's Garden Club of Memphis has started what we feel will be one of the finest arboretums in the country. All of these gardens are open to the public, and we have the full co-operation of the city of Memphis, which furnishes us with all the labor we need."—JAKE SCHARFF, Memphis, Tenn.

Magic Hour

The time between sunset and dark is a magic hour in the garden. The last rays of the sun show up the colors in an iris flower that few people know are there. I wish that I were able to catch on film some of the colors I have seen through the petals of an iris. They remind me of stained glass windows in a church. Those folks who see a garden from the gate are surely missing a lot. I always enjoy seeing down inside the flower. Some of the inner parts look like something from another world, with the tints, lining, and faint pearl-like quality that you can see if you really look. I have sat myself down in front of something special and watched it open a few times. You can feel something special in the garden at a time like that, a very rare quality, almost of worship.—MRS. MALCOLM CASH, Golden, Colo.

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Lothian Pub. Co., Pty. Ltd.\$5.00

While this book was written primarily to cover conditions for the growing and breeding of irises in the Southern Hemisphere it is equally valuable for the iris grower in any and every part of the world. Mrs. Stevens has written from first-hand knowledge and the experiences are actually hers.

WILSON COLOUR CHART (Two vols.), Royal Horticultural Society \$15.00 pp. Supply limited.

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BULLETIN *of the*
NUMBER 151
AWARDS
AND
HONORS

AMERICAN
IRIS
SOCIETY

OCTOBER
1958

THE AMERICAN IRIS SOCIETY

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The President's Corner

IN THIS ISSUE of the Bulletin I would like to discuss with you three of the most important committee functions of the Society. They are Membership, Awards, and Exhibitions.

For a number of years we have had effective work from our Membership Committees. This year Mr. Robert S. Carney of Memphis, Tennessee is Chairman, and doing a most effective job. During the past three years our membership has increased from 3636 in October, 1955 to 5584 as of July 1, 1958.

This increase has not come by accident. It has taken hard work on the part of the membership and enthusiasm for the program of the Society. The growth has come in spite of an increase in dues and an economic recession.

During this period of years the percentage of non-renewals has been constant at 11 per cent of the total membership at the time the non-renewals are tabulated on October 1. The increase in membership has been brought about by the securing of new members. In 1956 we secured 735 new members; in 1957 there were 874, and the figures for this year will not be available for another month.

The above information indicates that our Membership Committee is doing a fine job. Each member is to be congratulated for his part in this effort.

During this past year we have been in the process of streamlining the functions of the Exhibition Committee. Mr. J. Arthur Nelson has done a wonderful job in this area of activity. The burden of this office has been tremendous in years past. We hope that changes have now been made so that service will be available to Show Chairmen more promptly than has been possible in the past. Mr. Nelson has been most helpful in preparing materials for shows. We now have a very fine inventory of supplies and should be able to meet your needs this next spring in a very adequate fashion.

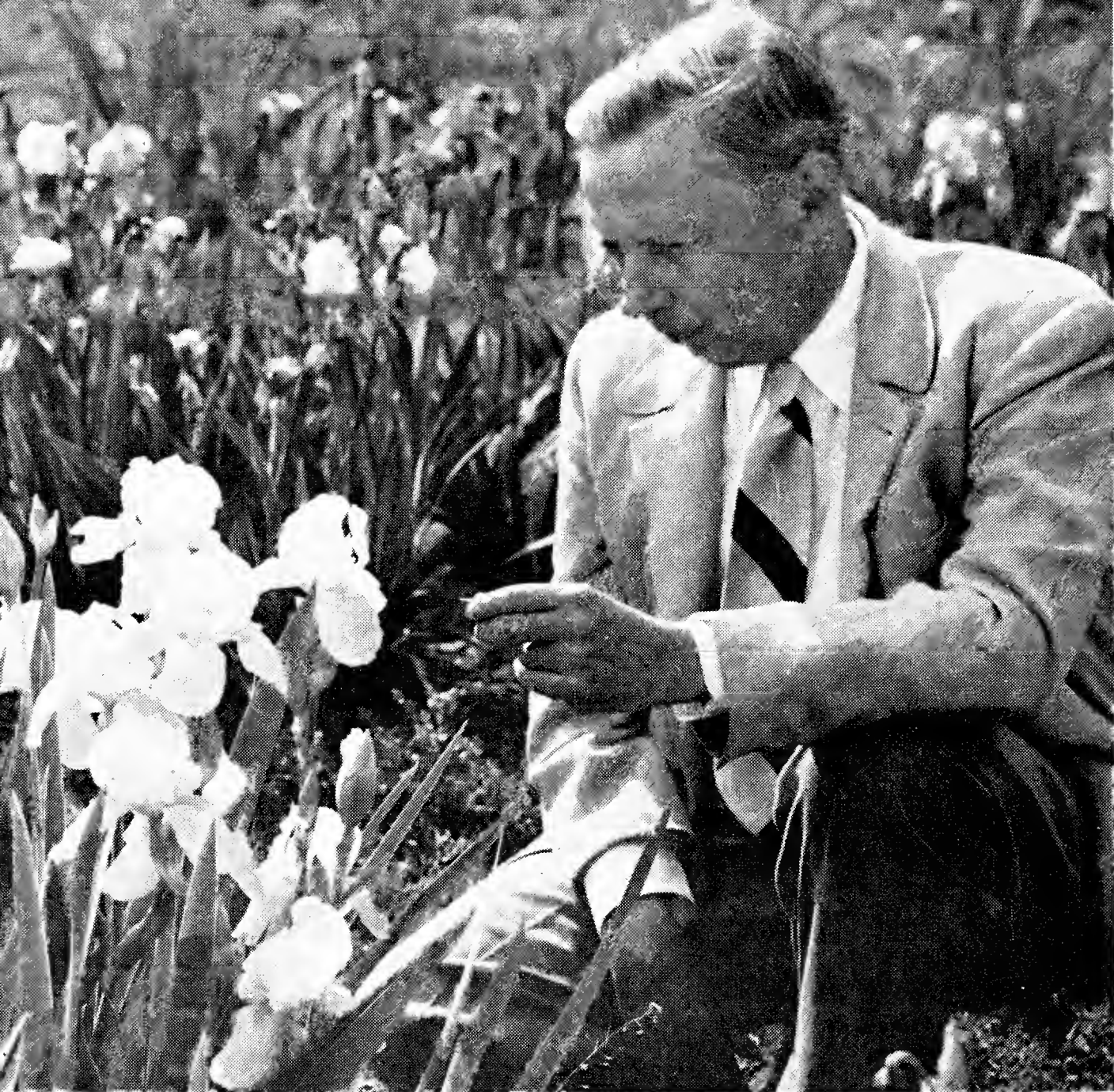
It is our hope that more of you will be interested in participating in show activity than ever before. This is the life blood of the Society. It is the place where every member, if he wishes, can have a part. I hope you will avail yourselves of the opportunity.

Finally, I would like to comment upon the work of the Awards Chairman, Jay C. Ackerman. He has one of the most burdensome tasks of the Society, and he is doing a splendid job with it.

The function of this committee is most important to the Society. The appointment of garden judges, the establishment of the eligibility for

FRONTISPIECE:

Amethyst Flame (Schreiner), H.M. 1958, received Rosette for Best Iris at meeting of Region 13, May 1958.



JESSE

ELY

WILLS

Awards, the tabulation of Awards and the publication of all of this information rests in the hands of the Chairman of the Awards Committee with the approval of the Board. This is a tremendous job and one which must be in capable hands.

Since we now have the added responsibility placed on us by the International Horticultural Council, the work of this committee is expanding and the Chairman has been co-ordinator of all iris awards other than for bulbous. This task is truly the key position as far as iris awards are concerned throughout the world and one of great service.

Next issue I would like to discuss with you the function of the Registrar. This is an extremely important office about which many of our members know little.

MARION R. WALKER,
President

October Portrait

GEDDES DOUGLAS, Tenn.

I first knew Jesse Ely Wills in 1916, when the newspapers shouted of World War I in huge black headlines; but war or no war, little boys had to be educated, and we both attended Wallace University School, a preparatory school in Nashville designed to fit young gentlemen for work at the great university nearby, nobly endowed by Cornelius Vanderbilt, and bearing his name.

Jesse was a tall, gangling boy, brilliant in his classroom work. There was a large room in the school which was a study hall, and in one corner Mr. Wallace held Latin classes. I can still remember sitting at my desk as a freshman, marveling at Jesse Wills reading Virgil in long sweeping sentences so necessary for the appreciation of this great poem—lines over which I was destined to stumble and falter two years later.

It was always thus with Jesse. His mental processes were direct. Things which were difficult for the rest of us, were simple to him. Hence, it was natural that he should join the young intellectuals at college known as the Fugitives. This group of young men was inspired by two professors, Donald Davidson, renowned for his historical novels of the Tennessee river, and John Crowe Ransom, a poet of note, now a professor at Oberlin College.

In its ranks were such men as the late Dr. Merrill Moore, famed Boston psychiatrist and poet, who is said to have written more sonnets than any man in the history of literature; Robert Penn Warren, poet, novelist, dramatist and critic, especially noted for his *All the Kings Men*; Allen Tate, whose poem *Ode to Confederate Dead* won wide acclaim; and Andrew Lytle, loved in the South for such delightful novels of the Civil War as *The Long Night*. It was during this period that Jesse developed a keen appreciation for poetry, literature, and art.

But Jesse was not destined to follow his artistic tendencies. When he graduated from Vanderbilt University in 1922, where he won the coveted Phi Beta Kappa key for scholastic excellence, he went immediately into his father's business, the National Life and Accident Insurance Co. He was made a director of the company in 1926, Vice-President in 1934, and Executive Vice-President in 1953; and it is interesting to note that from a small, local insurance company in 1922, Jesse and his associates have raised this institution to the twelfth ranking life insurance company in the United States and with more than five billions of dollars of insurance in force.

In addition to the above, he is Secretary and Treasurer of radio and television station WSM, one of the first and largest stations in the South.

But what are some of the other activities besides his business to which Jesse has dedicated his life's work? These are not hard to find. He is an

elder in the Downtown Presbyterian church, having been instrumental in its organization after the old First Presbyterian church moved its plant and congregation to a suburban location. He is a member of the Board of Trust of Vanderbilt University (a lifetime appointment); a member of the Board of Directors of Montgomery Bell Academy, a boys' preparatory school to which he sent his two sons; a member of the Board of Directors of the Nashville Childrens' Museum, a project of much local community interest.

This brings us to one phase of his activities to which he has given much of his time and thought: the American Iris Society. After his graduation from Vanderbilt in 1922, I did not see much of Jesse until 1935, when the annual meeting of the AIS was held in Nashville. It was then that we discovered we had a common interest—iris. From that day until this, our association has been almost a daily thing, much to my profit and gain, for you cannot be associated with this man without being affected by his sincerity, his dignity, his patience and calmness.

Jesse was elected to the Board of Directors of the AIS in 1939 and has so served the Society for the last twenty years. During this time he has been called upon to do many things, and he has done them all well: Tabulator, Awards Chairman, Publications Chairman, Membership Chairman, and from 1943 through 1946, he was President of the Society. Though those years of his presidency were war years, when it was extremely difficult to carry on the normal functions of the Society, still, under his leadership the Society prospered financially and enjoyed a period of sustained growth.

Jesse's interest in iris has always centered on the Tall Bearded. He grows a few *Spurias* and *Sibiricas* but only in a half-hearted way. His seedlings are all Tall Bearded, and while he has made crosses involving irises of all colors, his huge breeding program involving thousands of seedlings has been aimed in three directions: the blue and white *amoena*, the yellow and white *amoena*, and the reds. Curiously enough, however, his greatest successes have come in other colors. *Chivalry*, a blue, and his first introduction, won all possible awards including the Dykes Medal Star Shine, second only to *Chivalry* in popularity, is a yellow reverse bicolor. *Bellemeade*, though introduced in 1952, is still at the head of the blue and white *plicata* class. *Nashborough*, a smooth, brilliant *variegata*, bids fair to follow in the footsteps of the other three.

Jesse Wills was married to Ellen Buckner in 1930, and they have three children: daughter Ellen, sons, Mathew and Ridley. All three are graduates of Vanderbilt University, and currently both of the boys are in the armed forces.

A few days ago, as I was returning from a motor trip, I turned to my wife and asked her what she thought were the five outstanding qualities in Jesse's character. She answered me by saying that you could name the first two and forget the other three—first, his clean, sharp, uncluttered mind and, second, his great kindness. To these two I will agree as to

importance, but I think I would like to add the others. Making a third would be his uncanny ability to sort the important from the unimportant, to see and recognize the basic principles behind any issue.

In fourth place, I would put his executive ability, which he has developed over the years. Jesse has an awareness of success in which he will not tolerate shoddy performance either in himself or in those around him.

Lastly, I would suggest a most important thing—his sense of responsibility, a quality which has caused him to dedicate his life to things that he cherished most. First, his delightful family of which he is justly proud—though you would never know it because of his modesty and shyness; second, his business and his hobby, both of which have been developed to great success on a national scale; third, his services to his community as clearly shown in his work with his church, his university, and other local establishments.

With the coming of the new year, Jesse is retiring from the Board of the AIS. He tried to do this once before but was persuaded not to do so because the Society so desperately needed the value of his long experience. This time I think he means it. He has served his time and wishes to step down and give way to new talent. The Board will miss him, for truly he is a great man, loved and respected in the eyes of men, and humble in the sight of God.

IRIS INTRODUCTIONS—JESSE E. WILLS

1944—Chivalry, H.M. 1944; A.M. 1946; Dykes Medal 1947	1953—Blue Serene, H.M. 1953 Devoir Silver Flame Soft Answer, H.M. 1953
1945—Carillon	
1946—Russet Wings, H.M. 1946	1954—Right Royal Rose Garland Scimitar Shiloh, H.M. 1957 Starfire, H.M. 1956 Well Content
1947—Snow Crystal, H.M. 1947 Vigil, H.M. 1947	
1948—Tournament, H.M. 1948	
1949—Far Hills Star Shine, H.M. 1949; A.M. 1951	1955—Carnton Ivory Work Largesse Spanish Main
1950—Centurion Heart's Desire	1956—Darien
1952—Belle Meade, H.M. 1952	1957—Bronze Armor Nashborough, H.M. 1957

Garden Iris, Past and Present

A. A. SAMUELSON, Pullman, Wash.

Much has been said about the upsurge of registrations of new iris originations, the work of the enterprising and experimentally minded corps of the AIS membership. Figuratively speaking, hands are flung in the air in disturbed resignation at the yearly crop of registrants, registrations, and perhaps, at some of the christenings.

Laying aside the question involving the period of history or the condition of the U. S. economy at the time, it is interesting to notice the comparative numbers of registrations and registrants of iris varieties at the beginning of these activities and that of the present—the one recently at hand of the 1958 compilations of the 1957 registrations and that published in Number 2 Bulletin of the AIS, in January of 1921.

With the membership roughly in the 5000 bracket in 1957, we find by count 630 registrations of new iris in all the categories, made by 203 different members. Seemingly, one person in every twenty-five is finding the wager of two dollars each on their originations an interesting and rewarding gamble. On an average these folks have put up six dollars and some cents each for the privilege of telling the world (as per AIS supplemental Bulletins) an abbreviated story of their prowess as plant breeders and how well they have christened their “babies.” On another tack, we have about eight members in the Society to every 1957 iris registration, at a cost of about two bits per member, if costs were so apportioned.

Now a look at 1921 in that year's January issue of the Bulletin. R. S. Sturtevant reporting. This booklet of forty-four pages, plumb full of historical facts and current information, included a list of names of the twenty-eight Life members, eighty-two new and charter lay members, and seven honorary members, these latter the period's world-great of irisdome. All told there were herein compiled the names of one hundred-seventeen persons associated in the Society. On Page 38 is a list of the “varieties registered in the *Flower Grower*” (August to December, 1920 issues, inclusive) and the names of the registrants. We count forty-seven varieties and fifteen names of members in this list, many of whom are remembered by the amateurs of today. Naming some of the list, there were: Grace Sturtevant who registered eight varieties; B. H. Farr who named six; B. Y. Morrison, two; Frank Presby, one; E. H. Krelage, four; A. J. Bliss, two; W. E. Fryer, one; Wm. Mohr, one; J. Marion Shull, four; Mrs. Frances Cleveland named one Japanese and two bearded sorts; and Mrs. E. P. McKinney named nine Tall Bearded and two Dwarfs (Black Midget and Glee, an early yellow). This latter lady's name does not appear in the membership list as herein published.

The proportion of registrants to total membership today and in that day nearly three and a half decades ago is about twenty-five to eight. There was then, one registrant to every eight members, or in other words, an

average of seven members out of every eight, didn't and one did, register and presumably grow seedlings of iris. For what it is worth statistically, there were then about two and a half members to every registered iris, and an average of about three iris to each registrant. This latter figure is quite similar to our present-day records, but quite differently, as there are nearly eight members in the Society of 1957 to every registration!

The same Number 2, Bulletin had twenty-one advertisers; one claiming and listing six hundred varieties of choice iris; another promoted five hundred sorts. Obviously an abundance of varieties and iris species were readily available in those post-World War I days.

That the enthusiasms for the genus *Iris* was not a beginner's toy at the time is attested to by the entitlement of this *American Iris Society Bulletin*: "Garden Iris, Past and Present." The contents also live up to the title and are most illuminating, consisting of a fund of authentic, unusual, and useful information. Leading this story of the past is the eminent Ernest H. Krelage, of Haarlem, Holland. From his invaluable library of iris lore and literature, plus his broad personal horticultural experience, he compiles in twelve closely printed pages the work of the past masters of iris breeding and botanic studies. Commencing this chronology is the name known to all: Charles de l'Ecluse (*Carolus Clusius*), from whose work is learned the fact of the existence of twenty-eight different Tall Bearded iris in the year 1601, and the verbatim note that "a long experience has taught me that iris grown from seed, vary in a wonderful way, just as the early and other tulips and poppies."

"They Vary . . . Most of All . . . in (Their) Flowers"

Continuing from this, Krelage cites the work of Francois van Ravelingen, whose reprint of the *Herbal* of Dodonaeus, and some additional notes from Clusius, form the basis of a remarkable descriptive list of variations of iris to be found in gardens of those distant days. In further reference to the comments of Clusius, this edition of the *Herbal* continues: "They vary in foliage and stem; flowers and root; and flowering time, but most of all in flowers which show more variation than one could describe or imagine." The accompanying detailed descriptions concern ten variants of foliage; thirteen of stems, from "not taller than a foot" to "over eighteen inches"; there were five variants of spathe valves; eleven descriptions of flowers; their number, size, succession, fragrance, and their "color and form are innumerable and almost incomprehensible." There were eighteen kinds of falls described, eight different colored and sized beards (*no tangerines*), and seventeen sorts and colors of "crests", plus twenty instances of variants in standards. The flowering time was noticed to vary in three ways: some seedlings bloomed the first year after sowing, sometimes the second, and sometimes many years later. The seeds were of several distinctions; some plants never produced seed. The roots were sweetly fragrant, or unpleasantly so, and some were not pleasing to the taste. Van Ravelingen concludes the

description thus: "We have recorded all these variations, more as a guide to the amateurs in the knowledge of these plants, than with the object of describing them by words, for this would be impossible." At this point Mr. Krelage inserts his personal comments: "We get the impression that the same number of irises were known in 1600 as three centuries later, the main difference being that in 1600, they were not propagated from the roots, nor under varietal names." He goes on to speculate "whether the quality of the 19th century ones is greater than that of the older forms."

Names like Petrus Lauremberg, J. S. Elszholz, and Phillip Miller appear in Krelage's resume: all associated with the history of the seventeenth century bearded iris. E. von Berg records the results of his work with iris in 1833 and 1835, in *Flora* a German-language Botanic Journal. These experiments name his iris subjects as *Pallida*, *Squalens*, *plicata*, and *neglecta*. It is noted that he had a small form of *I. pallida* and a small-flowered as well as a dwarf-growing form of *I. squalens*. Seed of *I. swertii* gave self-similar progeny; *Flavescens* brought variegatas. *Iris florentina*, or some similar plant, produced white flower seedlings. There was a plant in his seedling cultures with expanded standards, naturally christened "Expanda."

From here Krelage takes us to the work of De Bure and the first, named *plicata* seedling, *Buriensis*. Thence followed the report of the seedlings of Monsieur Jacques and the variety *Belgica* from the work of Parmenter. The well-known name of the great Lémon now comes into the picture; his catalog of the 1840's listed over one hundred named varieties, the selections of his extensive seedling culture. He is reported to have never resorted to controlled hybridization. Students of the genealogy of modern iris will very frequently find Lémon's iris in culture or record and will certainly remember *Fries Morel*, *Honorabile*, *Jacquesiana*, and *Madame Chereau* among these.

Louis Van Houtte, a famous name in nursery history, now takes up the Lémon iris and offers them to the trade in a mid-century (1854-5) catalog. This was followed by the extensive listing of iris varieties by the two Verdiers who continued to exploit the Lémon stocks into the 1860's.

John Salter now comes to the scene with Lémon's and some of his own varieties. Easy to remember among these are *Queen of the May* and *Princess Beatrice*. His cataloging of iris terminated about 1870.

In Europe, the middle, dark ages of irisdom seem to have stemmed the tide of their popularity during the last thirty years of the nineteenth century, during which identities became lost or greatly confused; the spark of interest in varieties kept alive mainly by the activities in England of such nurserymen as Parker, Barr, and Ware, with such remembered sorts as *Cordelia*, *Darius*, *Gracchis*, and *Maori King*. On the last page of Krelage's fine commentary, we quickly dispose of the twentieth century with a parade of the great in irisdom such as: *Vilmorin*, *Millet*,

Denis, Cayeau on the continent; of Foster, Caparne, Yeld, Perry, Bliss, Dykes, Hort, and others in England.

In keeping with history, these comments on "Garden Iris, Past and Present" in Bulletin No. 2 would not be sufficient without a short review of Sir Arthur Hort's impressions of his frequent associations with "that pioneer and founder of the modern cult and cultivation of Iris," Sir Michael Foster. This great and good man was a Professor of Physiology at the University of Cambridge and lived at Shelford, some three miles away. His home, "Ninewells," was situated on the top of a chalk hill, and his garden, "a bleak eastern counties garden," was cunningly protected from the brisk prevalent winds by the judicious plantings of shrubs, etc. The soils of his none-too-rich garden were in his words "manured with brains" and enriched by the scatterings of soil from visitor's boots. His was, perhaps, the first work with combining the qualities of the Syrian and Turkestan native iris. These Tall-and-Onco-bearded derivatives were often named with combination parental words, as well as others named to honor the Persian poets. One of these, Dilkush, its meaning rather obscure, was referred to by Foster when questioned, as meaning "price o' my eye or something like that." There was a wry smile and a twinkle in his eye with this.

Foster Collection from Many Lands

He was a generous man and while his guest dug and labeled the gifts of rhizomes he in turn could devote some necessary time to the weeds that grew rampantly in his garden. His bearded variety, Mrs. Alan Gray; the pink pallida, Miss Willmott, a seedling of *I. kashmiriana*; and Caterina (the Queen of Cyprus) are all known to the many suffering from a siege of "Iritis" as Foster was apt to apply to an indulgent fan. His extensive collections of all manner of iris came from many lands and sources and were grown on his chalky hill and nearby moist chalkpit with considerable success. Much more is related by Sir Arthur Hort about his friend, his garden and works; also much modesty is displayed by Sir Arthur about his own important contribution to iris improvement. He concludes his eleven-page dissertation with a closing paragraph that may well set a pattern for patience and advice worthy of followers of the modern cult: "Let me conclude" Sir Arthur says, "by recalling one garden wrinkle which I picked up from Foster." He had endless patience and would wait many years (as many as twenty in an extreme case) for seed to germinate. And when he did turn out a seed pan, he emptied the contents, not just anywhere, but on cultivated ground, on a chance that seedlings might yet appear. Using this sage advice, Sir Arthur grew one of these foundlings from his own miscellaneous tardy seed pans, which at maturity he later judged to be the best iris he had hitherto raised. He wished he "could have shown it to his revered Master."

This initial AIS booklet, a gold mine of iris information, continues with an article about Ricardi, by F. Denis. He relates that it was in the garden

of his friend M. Alphonse Ricard that he first saw this iris, a native of Jerusalem. It was later classified as *I. cypriana* var. Ricardi x Foster. Dykes reduced it to a form of *I. mesopotamica*. Denis used this exotic variety extensively and some present-day gardeners may have grown his Mlle. Swartz and Mme. Durand, derivatives of it. Due to the flexuous stems of the Ricardi progeny, Denis later substituted Macrantha as his leading iris parent.

On page 27, Sidney Mitchell writes about the present (1921) favorites and the future prospects, reviewing his own work and that of Wm. Mohr with *I. mesopotamica*, the Oncocyclus and the Regelia forms of iris. Grace Sturtevant submits a list of eighty-five iris varieties proven to be fertile as breeders. Only eight sorts were pollen fertile and four were seed fertile but lacking pollen or its fertility. Of the twenty-one kinds proven sterile, all were progeny of wide crosses.

With several other contributions in this bulletin dealing with culture, quarantine, and judging the digest of its material may be concluded, but not without a feeling of distinct appreciation for this review of the iris breeders' kingdom, commencing record some 360 years ago, and since having traced its irregular pattern of development across the civilized world. The cult has indeed left a deep impress.

Some years ago, one of the officers of the present Society estimated that at least ten per cent of its membership—then about 2500—was devoting some attention to the growing of seedling iris. If the same proportion held true today, we should find 500 of its members practicing the arts of the plant breeder. However, from current observation of such activity, it would seem that this estimation is much too low. Undoubtedly, by counting both members and non-members that are so working with iris, it would be found that several thousand gardeners in the USA are currently paying homage at the feet of the "Rainbow Goddess."

Notice to Growers and Hybridizers of SIBIRICAS

I would appreciate hearing from anyone now hybridizing iris of the SIBIRICA group, both within the group and with other types of iris; also from commercial growers who list SIBERIANS, giving the names of species and varieties they carry.

Mrs. H. L. Edwards
235 Koehl St.
Massapequa Park, N. Y.

The Relationship of Genetics to Iris Hybridization

NORLAND C. HENDERSON, Ind.

Any attempt to explain the importance of genetics to iris hybridization is like trying to explain the use of the alphabet in writing poetry. We know, from experiments with other plants, that color, height, habit of growth, time of blooming, shape of flower parts, shape of leaves, branching, disease resistance, and practically all other characteristics are determined and controlled by genes. We have no reason to believe that irises are any different. Quite a bit of research has already been done along the lines of the genetics of iris, but there are still many things which we do not know, and many things which we do know, but do not understand fully. There is still plenty to be done.

The basic principle of plant breeding is: KNOW YOUR PLANT. How much do we actually know about iris?

Since almost all plants found in the wild are diploids, it is perfectly natural that practically all the work that has been done in plant genetics has been done with diploid plants. The ratios which you will find in most genetic texts are usually based upon these diploid plants and do not fit our situation at all. However, this does not alter the accuracy of these ratios. We must simply look a little further and get the tetraploid ratios, which, as you might expect, are much more complicated. I feel that any attempt to understand the genetics of the Tall Bearded Iris must begin here.

In a normal diploid species of iris, (Tall Bearded group) each cell will contain 24 chromosomes: 12 different kinds and two of each. Situated along these chromosomes in very definite position or location are the genes, hundreds of them. We can learn to recognize these genes, however, only when there is a mutation which causes the gene to produce a different effect upon the plant. It is the accumulation of a great number of these mutations which has made the iris the extremely variable plant that it is, and it is the extreme variation that has made the iris a valuable garden plant. Most of the mutations which occur are recessive to the original gene, but the mutant gene is still found at the same locus (location on the chromosome) as the original gene. It is this contrast between the forms (called alleles) of the same gene which makes possible an accurate study of the genetics of the plant.

In a tetraploid plant there are 48 chromosomes: still 12 different ones, but now there are four of each. Thus, instead of there being two genes for each characteristic, there are four. This not only complicates our ratios, but also makes it necessary to change our terminology.

In the diploid if we had two dominant genes present (BB), we referred to the plant as homozygous dominant; if we had the two recessive genes present (bb), it was homozygous recessive; and if one dominant and

one recessive were present (Bb), it was heterozygous. In the tetraploid we can have a homozygous dominant ($BBBB$) and a homozygous recessive ($bbbb$), but what about the heterozygous condition? We have three possibilities ($BBBb$), ($BBbb$), and ($Bbbb$).

This, therefore, makes it necessary that we coin some new terms. Considering the dominant gene, ($BBBB$) would be quadriplex, ($BBBb$) would be triplex, ($BBbb$) duplex, ($Bbbb$) simplex, and ($bbbb$) nulliplex. This gives us a very workable set of terms.

Now as to ratios: in the diploid, when a homozygous dominant plant (BB) is crossed to a homozygous recessive (bb), all of the F_1 generation would show the dominant trait and would be heterozygous (Bb), and if two of the (Bb) plants were crossed, the F_2 ratio would be 1 (BB) to 2 (Bb) to 1 (bb). This, since the dominant gene is expressed, would give 3 dominant traits to 1 recessive (only the homozygous recessive would show the recessive trait). In the tetraploid the F_1 would be a duplex plant ($BBbb$), and by crossing two of these, we would get an F_2 ratio of 35 dominants to 1 recessive. Other ratios?

One pair of alleles in the F_2 :

diploid 3:1

tetraploid 35:1

Two pairs of alleles:

diploid 9:3:3:1

tetraploid 1225:35:35:1

Three pairs of alleles:

diploid 27:9:9:9:3:3:3:1

tetraploid 42875:1225:1225:1225:35:35:35:1

Of course, these are much more complex than the diploid, and that is very probably one of the reasons why more has not been done on the group. But it should not discourage us, for if we keep our problems limited as much as possible to one set of alleles at a time, it is not too difficult.

Mendel found in his work with four-o'clocks that the gene for red was incompletely dominant to white, and that the heterozygous condition was intermediate (pink), but since we have in the tetraploids three different heterozygous conditions, the term "dosage-effect" has been proposed to explain incomplete dominance. Here is the way it should work: let B stand for the gene for blue and b for the gene for white (the recessive for blue). Instead of getting the ratio of 1:2:1, which is the diploid ratio for incomplete dominance, we would get:

1	very deep blue	($BBBB$)
8	deep blue	($BBBb$)
18	medium blue	($BBbb$)
8	light blue	($Bbbb$)
1	white	($bbbb$)

However, we do not know whether this is the correct answer to our many different hues of blue or not.

In making a test-cross in the diploids, in order to determine the genotype of an unknown (if BB and Bb have the same appearance), by crossing it to a known recessive (for the set of alleles in question), the ratio, if the unknown is heterozygous, would be 1:1, if homozygous dominant, the heterozygous only would appear. In the tetraploids we have again a more complex problem. If the unknown is simplex (Bbbb), the ratio would be 1:1; if it is duplex (BBbb), the ratio would be 5:1; if it is either triplex (BBBb) or quadriplex (BBBB), all of the first generation would show the dominant character. The triplex would give some simplex (Bbbb) plants in the first generation which when crossed back to the recessive would give some ratios of 1:1, while the first generation of the quadriplex would all be duplex and in the second back-cross would all give a 5:1 ratio. Therefore, in two generations at the most, we can determine the genotype for any given set of alleles, if we have the homozygous (nulliplex) recessive for the test-crosses.

It is ordinarily conceded that the plicata gene is recessive, and that its allele is the self-pattern. If we look at the various aspects of this assumption, we will find that it is not quite that simple. The amoena pattern is considered to be dominant to self. This would indicate that both plicata and amoena are multiple alleles of self, and we have no evidence to support this.

In the matter of plicatas we have a good example of a recessive modifier of a dominant gene. The plicata gene, when in the nulliplex, modifies the anthocyanin gene by controlling and limiting the distribution. If the recessive for the anthocyanin gene replaces it, the plicata pattern cannot show. Jake is such a recessive white. The same is true if the plicata is on a yellow ground where the stippling or stitching is brown or red (this is also an expression of the anthocyanin gene), if the recessive for the anthocyanin gene is present we get a yellow self as in Elsa Sass. This is not a recessive yellow as it has often been considered.

Another problem is presented here: What is the difference between plicatas such as Port Wine and Rosy Veil? Is this due to dosage of anthocyanin, or is it due to another series of modifying genes? The question almost invariably arises: if plicata is not recessive to self then to what is it recessive? We will simply have to consider that the dominant allele is non-plicata.

The amoena pattern is another interesting genetic problem. The Wabash type of amoena has a purple overlay on the falls which are basically white. This same gene is also responsible for neglectas and variegatas. In the neglecta, the overlay is on a blue self; in the variegata, on a yellow self. This in itself shows us that amoena is not an allele of self, as it manifests itself even in the presence of a self-color in blue, yellow, and white. We must give the recessive gene here the name of non-amoena. There are other problems associated with this pattern also. Is it just one gene controlling the pattern and carrying with it the ability



A corner of Orpington Nurseries, looking north towards office door. Mr. Hutchison of Orpington shows iris to visitors.

of producing anthocyanin, or is it two genes closely linked, one for pattern, and the other for pigment?

Time will not permit consideration of the other many problems but here are some of them:

How many sets of genes are responsible for blue?

What are the inhibitors?

Is purple due to a completely different set or sets of genes than is blue?

Or is it due entirely to modifying genes?

Is there any flavone yellow in the Tall Bearded iris?

If so, how will it act in breeding with a blue? Will it produce a green?

How are the blends produced?

Where does the Pinnacle-type amoena fit into the picture?

What is the Flavescens pattern? Is it an amoena with the anthocyanin lost or inhibited?

How does the T-factor work?

As we begin to solve these, other problems will be presented.

An article appeared in the July, 1954 *Bulletin of the American Iris Society* on "Forty Famous Forebears" by Allen Harper in which he said, "So I decided at long last that there just might be something to genetics after all; that maybe good parents do produce good offspring, and that like tends to beget like. But how to determine a good parent?"

If we conscientiously study and apply the principles of genetics, we can *produce* the good parents, which in themselves may never win an award but will pass on to their offspring the qualities which will win.

The 1958 English Iris Season

LAURENCE W. NEEL, England*

In describing an iris season where does one start and where does one end? The "London" season or the "Newport" season are definite dates which can be pinpointed by certain happenings, but not so what we gaily call the "Iris Season." In a genus of plants containing so many species there is always something happening, and though the Tall Bearded undoubtedly steal the major share of the limelight, there is much of interest to be found during the other eleven months. However, to try and give a short account of our 1958 season I will commence at the New Year and see what has occurred during these six months up to the end of June. If much of my report is on a personal note I'll ask your forbearance.

The winter of 1956-57 was one of the mildest we have experienced for many, many years, and plants which normally suffer to some extent each winter came through unscathed. Amongst these were *I. stylosa* (ungicularis). Nearly every February we get a spell of very hard and prolonged frost, and even where *I. stylosa* is planted under the protection of a south wall these frosts do damage the flowers and opening buds, and undoubtedly tend to damage the buds forming for next year's flower. Because of the previous mild winter we have this year had more bloom on this iris than folk can remember. Flowers started to appear in October and carried right through until well into March, and even clumps which previously had flowered but sparsely this year gave a wealth of bloom. Such flowering appears to have been general over the country.

In late February and early March the various members of the reticulata section (all bulbous) gave us bloom. The reddish variety J. S. Dijt is rapidly gaining in popularity, for it is dependable and increases well. Two new varieties of note are Harmony and Joyce, but bulbs are still very scarce. In March, I was privileged to see *I. winogradowii* in bloom. This almost legendary variety has large, creamy yellow flowers which appear before there is any sign of a leaf.

This year we have suffered from a very cold, dry spring, and though there were no extremes of temperature, we did have frosts until very late. Consequently, the dwarfs which normally can be counted on to make April such a gay month, hardly appeared until the end of that month and were at their best during the first week of May. There was nothing put up for judging at the R.H.S. Show on April 1, but I did notice a few plants of a yellow form of *I. mellita* being shown on one of the Trade exhibits, also *I. rubromarginata*.

For the first fortnight in April I was engaged in moving from Walton on Thames to Orpington and getting settled in. All my spare time was taken up with fussing over our irises for the exhibit at the Chelsea Show.

* Orpington Nurseries, Orpington, Kent.

These, of course, have to be brought on under glass, and as the time gets near, so does one's crop of grey hairs increase. By the second week of April there were few buds even evident, so we started to push them. With frosts nearly every night it was hard to keep up the temperature, and yet during the day, when the sun came out, the houses got much too hot. However we did manage the job in the end, and nearly all the pots of plants arrived at the show in perfect shape.

On April 15, there was another Fortnightly Show at the R.H.S. Hall, and again there were no irises to be judged. Again *I. mellita* was being shown by the same firm, and on another exhibit two or three pots of *I. gracilipes*, which is not only one of the smallest of the iris family but surely must be one of the most graceful. My first pumilas to open were Lavender Dream and Sound Money on April 26, and by May 1, a collection of wild pumilas were all in bloom. At the R.H.S. Show on April 29, three or four dwarf seedlings were considered good enough to be sent for trial at Wisley, and several others just didn't make the grade. On one trade exhibit was a magnificent showing of *I. bucharica* and *I. magnifica*, both superbly grown. The season really was getting under way, for there was also a very fine exhibit by Messrs. Kelway & Sons of some fifty varieties of Tall Bearded, mostly hybrids of their own raising.

On May 3, I was able to inspect Cecil Goulton's very fine collection of dwarf irises, and they were all I'd heard they were. There must have been thousands of blooms out, mostly his own hybrids, though many of the newer American dwarfs were well represented. Any plant that will give such a show must become popular, and it's no wonder they are being more and more sought after. It struck me that in these dwarfs clearness of colour was of far more importance than perfection of form, and though the flowers don't last long, the mass effect is wonderful.

On May 8, I welcomed our first American visitor of the Season: Mrs. Richer of Indiana, a staunch supporter of the Median Society. Although we didn't have very much out, I was able to show her some extraordinarily good dwarf seedlings from *I. pumila* X (Welch H.503 x Hanselmayer) and also a planting of her own Gaynelle which has been grown here for twenty-five years.

By the tenth of May everything but the weather was hotting up, and that varied from cool to very cool. However, *I. hoogiana* was in bloom; and the Regelio-cyclus "Artemis" and *I. korolkowii*; *I. douglasiana*, Agnes James; and a plant of *I. innominata* x *I. thompsonii* were in flower and very lovely. In America you have some of the most wonderful species of irises to be found anywhere, and surely these natives of the Pacific Coast are the loveliest of all.

From May 15 until May 23, we were pretty well taken up with the Chelsea Show. Our lady folks spent the fifteenth papering the spikes, tying tissue paper over all the buds to protect them. We sent

the first truck-load of plants up on the sixteenth, and one of my men and I spent that day organizing our site—spreading loam over it to a depth of one foot, laying turf round the sides and as paths through the middle, and setting-in the birch trees that are so much a part of an Orpington exhibit at the Chelsea Show. These trees have done duty at so many Chelsea Shows I wonder if they couldn't find their own way there! On the seventeenth, another truck-load of plants was sent up, and we spent that day and Sunday, the eighteenth, staging. Monday, the nineteenth, was taken up with a final going over—making sure all labels were in place correctly, seeing that no dead flowers were in evidence for the judges to see. Late in the afternoon we had a few irises to judge which had been submitted for the attention of the Joint Iris Committee of the R.H.S., but due to the lateness of the season they were few. Very different from the eighty-odd we'd had to judge in 1957. Mrs. Brummitt submitted some extraordinarily fine Californian hybrids of most beautiful form and colour, showing what exquisite flowers these can be. After the judging was done and before the visit of the Royal Family to the show, I had a chance to look at the many fine irises on the various Trade exhibits. Our Queen and the Duke of Edinburgh, The Queen Mother, Princess Margaret, and various other members of the Royal Family entered the grounds about 5 P.M. and spent all of two hours inspecting the exhibits. It is a visit that we in the Trade much appreciate, for Royalty finds time for a word here and there with the nurserymen, commenting on some particular variety or asking about weather difficulties and such like.

Darby Lilliputs Sensational

Amongst irises I noted particularly were: Argus Pheasant; Black Hills; Cape Cod; Carnton; Derwentwater; Lady Ilse; South Pacific; Dotted Swiss; Golden Sunshine; Cherry Ripe; Sunny Spain and Orpington's C.30 ((Dora Morris x Benton Susan) X Dancing Sunlight (Sass)), a really magnificent red plicata which has been provisionally named Collingham. Species are not usually well represented at the Chelsea Show, but we had managed to bring on a number of Sibiricas; also had *I. japonica*, Ledgers var., in very good bloom; as well as *I. graminea*. However I think the cause of the greatest interest on our exhibit were the new Lilliputs raised by G. W. Darby, amongst which Austrian Sky was outstanding. About one foot high, a clear blue in colour with a deeper thumbprint on the falls, it is going to have decided garden value. The parentage is Welch H.503 x Blue Ensign. Another beauty was Brighteyes (Welch H.503 x Missouri Night) with lemon yellow blooms and a dark blue thumbprint.

After Chelsea the weather warmed up and the Tall Bearded started to come out, though very slowly, and it was touch and go whether we should have sufficient bloom to stage the Exhibit at the Iris Show on June 3 and 4. However, I was able to obtain a fair number of spikes

from my old planting at Walton, which stood us in good stead. This is the show at which the Tall Bearded come into their own, and as well as the new seedlings raised by members of the Iris Society one is able to see some of the latest American novelties. The competitive classes produce a number of extremely good entries and judging them is far from easy. Philip Hutchison of this Firm won the coveted Romney Towndrow Trophy with a magnificent yellow plicata (sister seedling to the C.30 shown at Chelsea) which has been provisionally named Golden Ripples.

Amongst many wonderful irises, I particularly noticed: Caroline Jane; Starshine; June Bride; Pacemaker; Summer Song; Harriette Halloway; Ballet Dancer; Palomino; June Meredith (which must surely be the pinkest pink yet); Flirtation; Belle Meade, of the candelabra branching; Dotted Swiss; Miss Eva Faught's Carbondale; Mr. Randall's Patterdale, of the marvellous branching; also his Buttermere; Rehobeth, a wondrous iris for the show bench; Spotlight; Pagan Royal; Sunset Blaze; Mr. Fotherfill's Pegasus, that stately white with the tinge of blue on the beard; and many others. Some new, some not so new, but they all helped to produce the "oohs" and "ahs" from members of the public whose acquaintance had been limited to the old germanica, and perhaps, florentina irises; and from the more knowledgeable who wished they could trade Blue Shimmer for Caroline Jane or Dotted Swiss.

Pacific Coast Species Colorful

Mrs. Brummitt of Banbury staged a really magnificent table exhibit of Western American species, one of the most colourful exhibits we have seen in many a long day and which received a great deal of attention from the public. *Iris douglasiana*; *innominata*; *bracteata*; *munzii*; and hybrids between all of them and the named *I. douglasiana*, Agaguita, helped make it up.

This year the British Iris Society went back to the earlier days of the Society, and our annual dinner was held on the evening of the first day of the show. At this the prizes were awarded, and afterwards we all went back into the Hall to examine the exhibits at leisure. A very pleasant ending to the first day of a great show.

Amongst new irises which I have bloomed at Orpington this year have been the following: Huntsman, such a wonderful colour but no substance; Solar Maid, so yellow it looks as if someone had painted it on the petals with a brush; Spanish Main, a fine brown by any standards; Scimitar, a bright brown with a tinge of blue on the falls; Harriette Halloway, another fine blue; Seafarer, which looks like the ideal blue for the front of the border; Party Dress, Happy Birthday, Rosa Barone, and other good pinks; Marion Hamilton, perhaps the smoothest iris I've ever grown, for it doesn't even show a haft marking as it fades—this great apricot iris from the able hands of Earl Roberts, Pres. of the



*Above, Gaylord (Douglas), Extravaganza
X Wabash.*

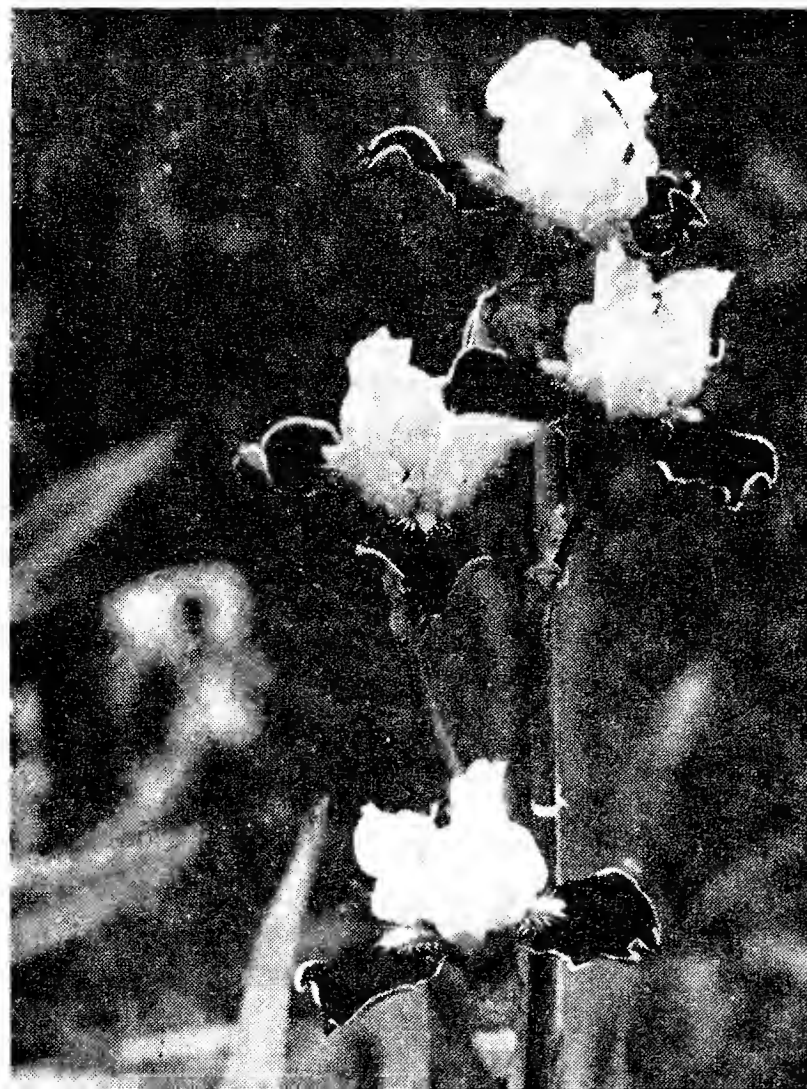


*Above, Headlines (Brummitt), an amoena seedling
from Extravaganza X Louise Blake.*

*Below, Dandy (Brummitt), seedling of
Staten Island X Louise Blake.*



*Below, (Brummitt), an amoena seedling
from Dandy X Gaylord.*



Median Society, is a winner all the way; Frances Craig, a lovely blue Oncobred which looks as if it is going to grow well in England.

On June 9, I was able to pay a short visit to H. J. Randall's lovely garden at Woking. The irises were at their best and I noticed particularly Ennerdale, a much improved Mattie Gates; Patterdale, a fine mid-blue with wonderful branching; Kirkstone, the magnificent brown which we all admired so much last year in its seedling stage; Sarah Elizabeth, a most beautiful pale blue just coming into bloom; a clump of Carnton, a variety that is certainly setting the standard in red irises today; Derwentwater, nearly true blue; Summer Song; Right Royal; Ella Ray; Golden Rule; and a beautiful clump of Pink Bountiful. There were of course many rows of superb seedlings, and I always wonder how Mr. Randall can ever decide which ones to keep.

It is said that this has been the wettest June since 1903, and certainly the latter half of the month has been very wet. It has been a wonderful year all over for iris bloom, accounted for I think, by the very hot spells of weather in the summer of 1957, and certainly here at Orpington we have not had so much bloom before. The heavy rain has largely spoiled

Late Blooming Iris Invaluable

the latter part of the season, but it is surprising what a lot of punishment irises can take, yet still look colourful. There is always that other bud to come out.

Not until I had taken over this great collection of irises at Orpington did I realize what value some of the very late varieties have, for despite nearly a week's torrential rain, we are going to have irises in bloom in July: Adios, Extravaganza, Sweet Lavender, Airy Dream, Staten Island, Garden Glory, Harvest Moon, Coastal Command, Indiana Night, Pale Primrose, Arab Chief. None will ever win a Dykes, but they are none the less invaluable.

Mr. L. W. Brummitt of Banbury in Oxfordshire has been working on amoenas for a number of years, and as we all know, it is very difficult to produce a worthwhile new variety. However he has come up with one called Headlines, which is a beauty. It is very late-flowering and extremely weather-resistant, and its worth has been proved here at Orpington during this rainy spell. He has given us another good iris with his Dandy, a brilliant variegata with practically no haft markings. His latest variety is called Wood Pigeon, an amoena with lovely grey and lavender falls and dazzling white standards.

Although as I write this at the end of June, the "season" is nowhere near over, for the Spurias are now coming out; the Sibiricas are going over, but *I. kaempferi* will soon be taking their place. *Iris pseudacorus* is making the ponds golden, and for me one of the highlights of this season has been a large clump of *I. laevigata* in a corner of our pond with its wonderful blue flowers, some spikes of which have bent over until the flowers are floating on the surface just like blue water lilies.

Another highlight has been the sight from the train windows on a trip between London and Birmingham of great clumps of *I. ochroleuca* in gardens backing onto the railway line. What a wonderful plant this is and how worthy of a selected place in any garden!

Soon it will be September and time for *I. stylosa* to start blooming again, and then will come *I. alata* and the delicate little *I. vartanii* from the Jerusalem hills. It's a never-ending cycle, isn't it? Have you ever thought that there are no annuals in the iris family, and that once planted iris are there for keeps?

Advances in Breeding Oncobreds

FRED R. CRANDALL

I have been hybridizing iris only since 1946, so I don't rate myself an expert yet. In that time I have picked up a little experience and a few opinions on the subject. I have been most interested in the Oncocyclus and Regelia species and the problem of crossing them with the Tall Bearded irises. Results with the Oncobreds (hybrids of Oncos and Tall Bearded) have been so meager that I have put in far more work on the Tall Bearded than on the hybrids. It is possible to get more and better results now, and it is about this I would like to make a few remarks. For those not familiar with the Oncocyclus species, it is without a doubt, the orchid of the iris family. With wide beards that spread out the full width of the fall, heavily patterned and with contrasting signal patches, they are a real challenge to the hybridizer.

The problem briefly is to transfer the unusual features to a strong healthy plant of dependable performance, and to eliminate the strong affinity for mosaic that these species and early hybrids seem to possess.

From what I've seen I believe that either this can be done, or stock developed that is sufficiently mosaic resistant to make satisfactory growth. Many of the vigorous seedlings of Snow Flurry, New Snow, and other Purissima derivatives by Capitola pollen should make excellent parent stock.

For those who are unfamiliar with the problem, it is a question of combining the Oncocyclus irises (20 chromosomes) with either the diploid Tall Bearded (24 chromosomes) or the tetraploid Tall Bearded varieties with 48 chromosomes. This would normally, if the cross took at all, result in hybrids with either 22 (10 + 12) or 34 (10 + 24) chromosomes. One of the first of such hybrids, Wm. Mohr (22 chromosomes), was a cross of the diploid variety Parisiana with *I. gatesii*. I understand Wm. Mohr had been in existence for nearly ten years before it was persuaded to set a seed or two. Later Capitola, with fertile pollen, came along from Wm. Mohr x Ib-mac. Ib-Mac is another rare, fertile hybrid from *I. iberica* x *Macrantha*. For years now these two,

Wm. Mohr and Capitola, have been the mainstay of attempts to develop improved varieties with an Oncocyclus-type flower. Many fine iris have been the result. We now have strong plants and large globular, well-formed flowers, but still lack the pattern we want in a rugged plant.

It is an established fact that each outcross away from the Oncocyclus parent tends to lose the qualities we desire to keep. Therefore, the answer has to lie in inbreeding. I have found Capitola pollen is not generally effective on its own seedlings. How then are we to bring out the full wide beard and pattern if we cannot inbreed? Fortunately the blueprint for success is now clear.

In a talk given by Tom Craig, at the 1954 meeting at Salt Lake City, the tip-off was given on the proper course of action. Tom made the statement that the reason Clarence White of Redlands, California had broken the sterility barrier in his later Oncobreds, was due to the appearance of tetraploids among seedlings of pure Oncocyclus crosses. If true this would mean that such plants have 40 chromosomes. These crossed to a 48 chromosome plant would result in a near normal 44 count.

Successful Inbreeding Program Possible

I have acquired a number of these Oncocyclus x Tall Bearded hybrids such as Bali Aga, Arjuna Aga, Beisan Aga, Jallah Effendi, Asoka of Nepal, and others. I find all of these quite fertile when used on Wm. Mohr and Capitola derivatives. These are not yet of fully reliable growth and need special care in my area around Seattle, Washington and possibly in eastern areas, although I'm sure they probably will do very well in sections where their more exacting requirements can be met. However, they do make possible a successful inbreeding program, but it would seem that they are being used mostly in outcrosses or more interesting results would surely have become known. This spring I have many seedlings coming up from crosses such as (Snow Flurry x Capitola) X Black Joppa. This type of cross made in great numbers should produce fertile seedlings with full Onco beard and pattern. Selection should give us strong plants also.

I would like to urge those who have these later-type fertile Oncobreds to follow a similar program. Our wet winters and acid soil are ideal tests to weed out the weak ones. This spring I will have over 8,000 seedlings from Tall Bearded crosses to bloom. What a wonderful thing it would be if I could produce Oncobreds in such quantity! It would reduce the whole problem to one of selection. It is possible to get more effective crosses now and a great deal more seed, but germination of Oncobred seed is still slow. I haven't as yet used any form of embryo culture, but it looks as if I'll have to give it a try. If seeds are planted in a normal way, it is good practice to plant in containers and carry them over for a second year, as germination often is greater the second year than the first.

A few brief comments on some of the fertile Oncobreds that I am using may be helpful. All of these have the full Onco beard but an adequate description of the colors and pattern is beyond me. Jallah Effendi has grown best, with excellent foliage and good stalks. As this is written on the seventh of March I have one stalk 36" tall with four branches that is showing color! I hope I can store the pollen properly.

Black Joppa has grown and increased well for me. Its seedlings appear to be germinating well. Not too large a flower but strong pattern. Joppa Parrot has been impossible for me, but Asoka of Nepal is a perfect duplicate and grows much better.

Bali Aga grows fairly well and has typical Onco form with the falls neatly curled under. Arjuna Aga has been more difficult but is coming along, and I'm able to use it. Beisan Aga, a large-flowered variety, has grown a bit too well for me and gets caught in soft growth by cold weather. This year it has come through fine.

Some others have not been with me long enough to pass judgment. All of these have fertile pollen, freely produced. I have had cool weather here when Capitola would not produce pollen, but have had no such problem with these others. They should be very successful used on varieties such as Lady Mohr, Eastmont, and Frances Craig.

I find the Regelias hold their dormancy much better than the Oncocyclis and do not have the tendency for mosaic. There are certain combinations of characters that need to be broken before their virtues can be combined with the Tall Bearded in a satisfactory flower. *I. hoogiana* produces good blues, but they are usually narrow, of poor substance, and rather small. On the credit side, *I. hoogiana* produces unusual vigor. Best of all it adds a dormancy factor that can be of real value on blues from Purissima that are on the tender side. If I may be permitted a plug, I'd like to say that my Blue Spice (Cloud Castle X *I. hoogiana* x Shining Waters), that will be introduced this year, appears to have all of the virtues and none of the faults of *I. hoogiana*. It adds a fine nutmeg fragrance as well. This year I will use pollen of a good seedling of *I. hoogiana* on Frances Craig. This will combine three different species. The advantages of such a cross should be obvious.

Except for a basic knowledge of genetics I haven't gone too much according to the book in iris breeding. I don't believe that because we might not have a certain color we can't get it. I'm depending on careful observation, selection, and a strong back. I can't forget the sage observation of an early American philosopher: "What's the use of knowing so much, when so much you know ain't so." According to the rules, Wm. Mohr (22 chromosomes) should not be compatible with a 48 chromosome iris. Wm. Mohr gets around the rules by putting all 22 chromosomes instead of eleven into the cross. I'm working hard now trying for real results that I can show at the 1960 meeting at Portland, Oregon. I'm also looking forward to 1959 when the first planting of inbreds come into bloom.

*The New Look in Iris**

RALPH GEYER

Los Altos, California

Never before has such wonderful ruffled and laced iris in a wide array of rainbow colors been available to delight the general gardener and the iris collector alike. Without a doubt, this change has been brought about through the creative instinct of the hybridizer and his concentrated effort for perfection. Through careful and selective breeding many new creations make these modern iris a far cry from the purple flag in grandmother's old-fashioned garden.

Lately the trend in iris form has been towards the new laced iris. Since the advent of Chantilly in 1943, great strides have been made to improve this class. Butterscotch Kiss is probably the most talked about of all the new laced iris. Its general effect is butterscotch yellow with an over-all gold dust glitter. The petals are edged in intense yellow very heavily laced. Its sister seedling, Caribou Trail, is a rich, medium, golden brown with a bright violet blaze in the falls. The catalog describes Crinkled Sunset much better than I can: "The most heavily laced and shirred creation done in all the blending colors of a lovely sunset."

Queen's Lace is a warm white deepened to creamy yellow at the edges and in the center. Other new laced iris are Alice Lemon, Lemon Meringue, and Frilly Fringes.

Twenty years ago from the garden of Clara Rees came one of the forerunners of the ruffled iris, Snow Flurry. This one iris has probably done more to advance the beauty of iris than any other single variety. Its offspring number into the thousands, making it the unquestionable top parent of all times. Her newest introduction is Iristocrat, a beautiful addition to the cream class with a smooth ruffled form and a bright yellow beard.

William Schortman of Porterville has been producing superior ruffled iris for several years. His creations have been a sensation everywhere they have been seen. Purple Ruffles, which is just as the name implies, was a sensation at the national convention in Memphis last year. Pretty Redwings is a very ruffled red from plicata breeding. Polka Time is a flaring ruffled violet-blue with a small white spot on the falls. Gracious is a deep, dark ruffled purple and one of my favorites.

Larry Gaulter of San Leandro has a fine new white that is one of the most heavily ruffled iris I have seen. It is justly named Fleur de Blanc. Swan Ballet is another fine heavily ruffled white high on the popularity list.

The list of ruffled varieties includes these which are well worth

* Reprint in part from *San Jose Mercury*.

looking for: Violet Harmony, Mary McClelland, Black Taffeta, Hermit Thrush, and Violet Hills.

The color of the beards had never been considered important until the arrival of the true pink iris. Tangerine, pink, and red beards seem to go hand in hand with this new color. These bright beards were lacking among other colored iris so it is not surprising that hybridizers began concentrating their efforts to transfer these lovely beards to the other iris. They have been successful, too.

Frost and Flame is a fine pure white with a flaming tangerine beard. Techny Chimes is a large, luminous clear yellow from pink breeding, with a bright tangerine beard. My Happiness is the first true medium blue with a bright tangerine beard. New plicatas with the tangerine beard are New Adventure and Captain's Lady.

Although plicatas appeal to almost every gardener, the similarity between the older and some of the newer ones makes it difficult to find a new variety that will be in great demand. Some have made the grade though, and one of the most recent is Taholah. It received the highest number of votes for the Judges' Choice in 1957. It is a beautiful, ruffled iris with a ground color of creamy ivory brushed cinnamon-red on the falls and heavily shaded with the same color on the standards. Zulu Warrior is a heavily marked plicata with standards of cream stippled rose and falls of amber yellow with a band of rosy purple. This iris is bold and dashing.

The amoena class has been enlarged from the white standards and purple falls of the old Wabash to falls of light yellow, rose, and other colors. Broadway Star has standards of smooth cream and falls of rose with a magenta cast. Alpine Meadow has standards of clear white and falls of soft blue. Monique has white standards and medium yellow falls. Melodrama has white standards and blue-violet falls.

The crossing of Tall Bearded iris with derivatives of the *Oncocyclis* iris of the Middle East produces a race of hybrids with many exotic patterns and forms. One such is Golden Gladiator. This two-toned yellow with its Mohr shape won the seedling cup at last year's regional meeting. Bella Mohr is a rich red-violet with large full Mohr form and appearance. Nomohr is a bamboo cream with violet marking at the hafts, Onco-type blossoms with wide falls and heavy substance.

These are merely a few of the fine new introductions which have captured my fancy and given my garden that new look in iris.

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Oklahoma Iris Season, 1958

JOHN W. HUMPHREY, Stillwater, Okla.

The first iris to bloom in our garden was Sangreal, followed closely by Atroviolacea, and other dwarfs. Then came Frances Craig, White Ruffles, and other early bloomers. The most impressive dwarf we saw was Little Mohee. But let me hasten to add, we didn't see many small iris. We had an early date for our last heavy freeze; and the Oncos, Regelias, and their derivatives, normally damaged or ruined entirely, came through in fine shape, and we saw wonderful bloom on these.

We had planned to make the Regional Meet in Oklahoma City this year, for a preview showing of the 1959 Annual AIS Meet, and were accordingly, there early Saturday morning waiting for the bus at the hotel. We made ourselves known to iris friends we knew but had actually never met. Such very nice people they were too. Mel Wallace of Orem, Utah, who was guest speaker, was a passenger with us, and a more pleasant or agreeable gentleman would have been hard to find. The date was too early for the best bloom, and few of Mr. Wallace's guest iris (of which he has many) were in bloom, many not even showing color. Yet, he took it all with a smile and a ready answer to all questions. Many of the iris seen this year had to be judged from first year plants, and rarely is that bloom ever representative. One can only report what one sees. It takes the opinions of many to really classify an iris where it belongs, so please, if there are those who wish to take issue, bear in mind what I have just said. When I use the word "we," I have reference to our family of five, for the children share a portion at least of the "iris madness" which possesses their parents. Consequently, they generally make the trips with us.

The first garden we visited was that of the Ken Shavers on Northwest highway. It was apparent that we would see few new iris that day. Ken had almost nothing out yet, and we could not understand why, as we left more bloom at home (70 miles Northeast) than we saw in all the gardens visited that day. I am sure it was not as disappointing to us, as to the hosts of the Meet. Really, we were not at all disappointed, for we saw more than enough iris to make the trip worthwhile, and meeting such nice people was extra bonus. At each garden, we were served delightful refreshments, and treated royally.

The next garden was the McCaughey's, Mrs. McCaughey being the Helen that the iris, Helen McCaughey, was named for. A charming iris, and a charming lady! There we saw an historical collection, and a great many of the older things were blooming.

We had the opportunity to see many ancient varieties that we had read of, many of them not so far removed from some of our so-called "advanced" present day iris. Among the smaller iris, we thought Merry-maker and Jack O'Hearts were good. Happy Valley was probably the best of the Talls in bloom. Patience was blooming here; and while living

up to the advance notices as to good color, profuseness of bloom, and length of bloom season, the substance, to me, left a great deal to be desired. For mass of color, it would be hard to surpass.

From McCaughey's, our next garden visit was the beautiful estate of the Fred Jones, with its many interesting trees, shrubs, vines, and flowers, in addition to the large number of the newer iris which we had come to see. The bentgrass lawn was a beautiful smooth carpet we will not soon forget. One of the interesting trees in bloom was a sugar haw. Their gardener was most helpful, and ready with information. The only two newer iris, which were yet blooming, were Mr. Wallace's, and we saw the cameras clicking. White Cinderella, and a magenta-colored Mohr, #55-1, were lovely against the background of shrubs. Wherever we saw White Cinderella, it was performing well, though possibly a little tall for our windy climate. Next was the Eckerds' garden. They had many iris in border plantings, well kept, but again—little bloom. We were then served lunch at a small new church, and after a welcome rest, set sail again. Our next stop was the Raboin garden. Here we saw iris beautifully grown, clean as a pin, and in a lovely setting. Though there were few iris blooms, we saw many collected wild flowers, all labeled, which were interesting, beautiful, and, I am sure, immensely enjoyed by all. The home is semi-secluded among beautiful native trees on a westward slope. They have a small pond around which are terraces planted with Spurias and Louisianas in their proper relationship to the water. Mr. Raboin has indulged his hobby of rock collecting and has placed many beautiful and valuable specimens in advantageous positions in the landscaping.

The W. G. Nissen garden was next. This was a completely secluded spot, several acres in extent, in the wildwood on a bluff over the Deep Fork river. Although very well protected, again there was little bloom. In quick succession we then toured the W.P. and H.B. Atkinson gardens. The first was a large, beautiful, airy estate with many interesting plants around the home, and well-grown iris as well. Sierra Skies looked good here and was one of the few in bloom. We saw some lovely pink dogwood in full bloom. The second garden had many nice iris showing buds, but little bloom. They were beautifully grown, and we saw more buds on a clump of Firedance than we had ever seen on this variety before. The gardens all held promise of things to come.

Our next stop was the show. It was indeed surprising to see so many iris exhibited, when there was so little bloom locally. Exhibitors from sections where the iris were well open, had risen to the occasion and had provided many entries. The show was beautifully staged and gave every evidence of expert attention and a great amount of labor expended. Here listed, as we circled clockwise, are those looking best to us, all things considered: Blue Ribbon and Blue Champion (Dutch); Snowbound; *I. cristata*, *tectorum*, *folioso*; a seedling from Mrs. Zip Smith, labeled Robinson sdlg.; Paltec; Mary Valentine; New Hope;

Dream Dance; and Snow Goddess. Queen of the Show, was won by Misty Gold, which was a well-branched specimen with many freshly opened blooms. On the way out of town, we stopped by Mrs. Zip Smith's garden. It is a well-kept "little gem." We also saw the Robinson sdlg., and it looked very good.

A week later we returned to Oklahoma City and found peak bloom. At the Shaver garden we saw: Celestia, it was good, but short; Montecito was a wonderful flower, but there was just one; Appalachian, a nice blue, with not too good a haft; Angeline, a very desirable white. Dr. Katherine Foster, we liked better in every way than Mary Randall. Friendly Persuasion, pink with a yellow haft, was very good. 54-1 (Mrs. R. L. Campbell) had an intriguing dotted blue bud, but was not open. At McCaughey's, the first thing to take our eye was a stalk on Fay's 50-22, a tall, lovely, cream and white. It was good. Lucious had bloomed about out, but was like a ripe cantaloupe in color and had good substance. Lynn Hall had the best branching, being like a graceful candelabra, with its beautiful pink flowers perfectly spaced.

Hallmark was fair, but bunchy. Cascadian was good enough for anyone, and Cliffs of Dover was superb here, a marvelous white. Kezar Lake left something to be desired in the flower but has fine branching. Rehobeth was a picture on one beautiful stalk. Grecian Urn, a ruffled, pleated, hyacinth-blue, had a personality all its own, and we liked it so well we must have it for another year. Oriental Splendor, a plicata, was very nice, with good branching. Front Gate, a white, and Lady Rogers, a light blue, were both excellent large, good-substanced flowers, with the blue having the edge in substance. Both were a little short this year.

At Will Rogers Park, a stop I failed to mention as having made on tour, we found many good iris. Here they are planted three rhizomes, perpendicular, to the walks and viewer. The markers were excellent, the best we have seen. The flower we remember most vividly was Hopson's Cinnamac, not tall, but a fine Onco in straw and brown coloring, and fine indeed! Witch Doctor was a larger Conquest. Entering the garden, we could tell where the "Belle of the Garden" was. Spectators were as deep as they could gather, seeing three excellent whites from Chamberlain: 55-32A, 55-33A, and 53-21B. One was far and away the largest white we've ever seen, and all were blooming beautifully. 53-21B was the best overall, and close to the best, of the other good whites seen this season. Hinkle's New Love was an excellent white. Caledonia was fine. Douglas's 1018B was a good dark blue. May Sky (Sass) was good, an improved Moonlit Sea, with good branching. Valimar (Hamblen) was a lovely sight, though a little short. Sable Night was performing well this year, as was Lady Ilse, everywhere we saw it. Orchid Ruffles was nice this year, as were Senorita Ilsa and Canadaway, two good whites.

The Raboin garden was lovely. Helen McCaughey made an eye-catching clump. Snow Goddess did too. Magic Sails and Ruffled Elegance

were fine. Jade Queen (Knopf) was an odd tan which we liked very much. Wild Blue Yonder was also excellent, and Ballerina performed well everywhere. Purple Ruffles and Indiglow were outstanding in this garden, and anyone should be glad to have them.

In Tulsa, we visited the garden of Mrs. C. A. Wilde. It is lovely in its naturalistic setting. The iris beds form great drifts of colorful beauty everywhere. The pond further enhances the beauty of the garden, and the clumps of older varieties reflected there make a memorable picture. Fluted Copper was magnificent here. Dark Stranger, a fine ruffled dark iris in the black color range—very desirable indeed. DeForest's Byline, was very tall and good, of excellent color contrast, and called out for our attention across the garden. The older Spanish Fandango was beautiful in a huge clump. Mrs. Wilde led us to Cooley's pink sdlg., 54-45, which was good in every way, and surpassing many introduced varieties. Violet Hills, Colorglo, Harbor Blue, So Sweet, and Crinkled Ribbon made fine shows. Summer Song was a better Good News. Wide World surprised us—we had heard mediocre reports of it—but it was truly grand here, and we surely added it to our "want" list. South Pacific was good, as was Palomino. Solid Gold and Blue Sapphire were picture-perfect. I might add that for performance these two would be hard to beat, for they were growing to perfection and blooming beautifully wherever we saw them. Gay Lavinia provided the greatest contrast of any tangerine-bearded white we saw. It has excellent branching, though the falls might flare more for better effect. To name another that was a beauty and good performer, add Ruth. Native Dancer and Fleeta were fine.

In our own garden, the iris performed well except for the seedling plot, and we did get but about ten per cent of bloom from them. The rest were killed by a foliage disease. Do not let anyone tell you that foliage disease is not dangerous. When conditions are right, they will kill, regardless of sprays. Mattie Gates was good this year, as was Belle Amie, in that color range. Pretty Quadroon was the best brown we had. Of the lovely yellows, I suppose the best performer was Solid Gold, with Orange Gem giving it a close race. If you haven't tried Dowager Queen, you would be pleasantly surprised. Autumn Hues was good, as usual. Top Flight was its usual luscious apricot self. Pagan Princess outdid itself and drew many pretty compliments. Palomino, Helen Louise, and Cloudcap were fine performers, and Ballerina the best of the pinks. Blue Sapphire and Blue Hawaii were best in their color class; while Sable Night, First Violet, and Violet Harmony lived up to their medals. Others in the black field that performed well were: Tabu, Velvet Dusk, Congo, Black Castle, and Raven Wing. Deep Black was dark and good, but growing side by side with Tabu and Storm Warning, they were darker yet. Sespe was tall and good among the greenish tints. Charmaize did well, though it is generally a bit tender. Tabasco was a bright beauty, and the charm of Saffron Charm grew day by day. L'Amohr,

Mauve Dust, Mohr Majesty, and Purissamohr were fine in the Onco field, the latter being especially fine this year, reminding us, with the fluting of the petals, of a white Grecian Urn. The seedlings, of which a number were passable, didn't produce a world beater. One black purple was a tremendously big one, and the first flower was a freak with seven standards and four falls. Several nice pinks, pure pinks, and with green and apricot flushes were produced. The best seedling we had was a cross of Ruffled Organdy X Bellerive. It was a light cream, had a three-inch-wide haft, and the floret measured 8"x8", and had worlds of substance; it did fall short in branching. With a sigh of regret, we watched the Tall Bearded season close with a seedling on June 5. We only hope next year when you visit the gardens mentioned above the season will be as fine. See you in Oklahoma.



BUTTER BALL (Zickler, 1954) is an interesting hybrid between Marocain and *I. arenaria*. In color, it is a sulfur yellow self, and is nine inches in height.

photo by jean witt

AWARDS AND HONORS 1958

THE DYKES MEMORIAL MEDAL

THE AWARD OF MERIT

THE MARY SWORDS DEBAILLON AWARD

THE CAPARNE AWARD

THE ERIC NIES AWARD

HONORABLE MENTION

HIGH COMMENDATION

THE JUDGES' CHOICE

THE 1958 POPULARITY POLL

The Society has 535 accredited garden judges for 1958, 467 of whom cast on-time Ballots for the awards. In addition to this, 15 out of 59 honorary judges and 1 out of 5 foreign judges cast ballots, bringing the total ballots tabulated to 483, compared with 480 last year. This represents excellent continuing co-operation of the accredited judges. The following statistics may be of interest:

	1957	1958
Votes cast for the Dykes	463	462
Winner's percentage of the votes	23.3	29.4
Votes cast for the Debaillon Award	75	85
Votes cast for the Caparne Award	191	200
Votes cast for the Nies Award	179	157
Varieties voted for H.M.—Talls	907	852
Other than Talls	191	252
Varieties voted for H.C.	933	965
Breeders of H.C. Candidates	242	231
Received H.M.—Talls	57	76
Received H.M.—Other	22	38
Received H.C.	115	125

Subject to approval by the Board of Directors at their regular Fall Meeting, the 1958 awards winners are:

THE DYKES MEMORIAL MEDAL

<i>Variety</i>	<i>Originator</i>	<i>Votes</i>
Blue Sapphire	The Schreiners	136
Runners-Up		
June Meridith	Tell Muhlestein	39
Palomino	David F. Hall	36
Rehobeth	Fred DeForest	26
Sierra Skies	W. B. Schortman	25
White Peacock	Mrs. Douglas Pattison	22

THE MARY SWORDS DEBAILLON AWARD

<i>Variety</i>	<i>Originator</i>	<i>Votes</i>
Wheelhorse	Miss Caroline Dormon	12

Runners-Up

Pink Caprice	Sidney P. DuBose	11
Gay Deceiver	Mrs. Hattie B. Clark	6

THE CAPARNE AWARD

Veri-Gay	Walter Welch	25
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Runners-Up

Cherry Spot	Walter Welch	23
Little Mohee	Miss Vivian Grapes	21
Promise	Paul Cook	18

THE ERIC NIES AWARD

White Heron	Carl S. Milliken	45
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Runners-Up

Dutch Defiance	Eric Nies	22
Larksong	Eric Nies	21
Driftwood	Marion R. Walker	13

THE AWARD OF MERIT

Galilee	Orville W. Fay	132
Eleanor's Pride	Edward Watkins	129
Patrician	H. F. Hall	112
Taholah	J. M. Gibson	108
South Pacific	Kenneth D. Smith	89
Fleeta	Orville W. Fay	87
Big Game	Orville W. Fay	84
Carmela	The Schreiners	83
Violet Hills	Fred DeForest	83
Melodrama	Paul Cook	79
Lady Rogers	Guy Rogers	75
Dotted Swiss	Henry E. Sass	73
Snow Goddess	Jos. C. Becherer	73

Runners-Up

The Citadel	Edward Watkins	71
Patience	W. B. Schortman	70
Lavenesque	The Schreiners	68
Beechleaf	Dr. R. E. Kleinsorge	62
Dreamy	Jack G. Linse	62
Ruffled Taffeta	Miss Elma Miess	62
Bang	Tom Craig	58
Senorita Ilsa	Guy Rogers	57

<i>Variety</i>	<i>Originator</i>	<i>Votes</i>
Celestia	John Pierce	54
Gene Wild	Tom Craig	53
Mary McClellan	Tom Craig	53

HONORABLE MENTION

Tall Bearded Varieties

Whole Cloth	Paul Cook	72
Valimar	Hamblen	54
Allegiance	Paul Cook	45
Amethyst Flame	Schreiner	42
Exotic Blue	Randolph	41
Demetria	Hinkle	40
Enchanted Violet	Hamblen	39
Olympic Torch	Schreiner	34
Purple Ruffles	Schortman	26
Angel Curls	Branch	24
Gracious Helen	Wallace	23
Riviera	Plough	23
Spring Festival	D. Hall	23
Salem	Schreiner	22
Symphony	Hinkle	22
Bartow Lammert	C. Benson	21
Golden Anniversary	Walker	21
Helen Novak	Hinkle	21
Millionaire	Brizendine	21
Poet's Dream	Brown	21
Princess Anne	Zurbrigg	21
Rejoice	Dubes	21
Chinese Lantern	Fay	20
Marilyn C	Crosby	20
Wayward Wind	Baker	19
Allaglow	Tompkins	18
Concord Town	Buttrick	18
Hindu Wand	Plough	18
Karachi	Schreiner	18
La Negra Flor	Crosby	18
Melissa	Hinkle	18
King's Choice	Schreiner	17
Striped Butterfly	Noyd	17
Sweetheart's Folly	Cassebeer	17
Trophy	Linse	17
Wonderment	Paul Cook	17
Fire Brigade	Schreiner	16
Fluted Haven	Reynolds	16
Irish Linen	Fay	16

<i>Variety</i>	<i>Originator</i>	<i>Votes</i>
Lavendula	Branch	16
Firenze	Brown	15
Golden Cascade	Dubes	15
Lemon Fluff	Olson	15
Violet Rhythm	Whiting	15
White Foam	Knowlton	15
Blue Clif	Hamblen	14
Charmed Land	Crandall	14
Lov-Lee	Glenn Rogers	14
Mellow Gold	Lowry	14
Rare Gold	C. Schirmer	14
Biscay Bay	Schreiner	13
Champagne Velvet	Sass	13
Copper Halo	Gibson	13
Crinkled Sunset	Plough	13
Heartbeat	Lapham	13
Miss St. Louis	C. Benson	13
Polka Time	Schortman	13
Snow Ballet	Palmer	13
Aspenglow	Loomis	12
Black Delight	Sass-Ricker	12
Blue Marvel	Dubes	12
Cherokee Rose	Wallace	12
Fabulous	Kleinsorge	12
First Flight	Plough	12
Gabriel's Horn	Sass-Graham	12
Gavotte	Beattie	12
Gay Apparel	C. Schirmer	12
Georgia Maeser	Crosby	12
Golden Gladiator	J. Craig	12
Golden Splendor	Dubes	12
High Barbaree	Tompkins	12
Magic Halo	Coppedge	12
Melolite	Lowry	12
Truly Violet	Davidson	12
Whirling Girl	Rundlett	12
Winter Sunrise	Corey	12

HONORABLE MENTION

Varieties Other Than Tall Bearded

MINIATURE DWARF BEARDED

Black Baby	Sass	14
White Elf	Doriot	8
Fashion Lady	Welch	7
Pumar Alpha	Ackerman	7

<i>Variety</i>	<i>Originator</i>	<i>Votes</i>
Pumar Beta	Ackerman	6
Hullabalu	Welch	6
Jet Petite	Jonas	6
Little Blacksmith	Jones	5
Pastel Dawn	Welch	5
Tear Drops	Beattie	5

STANDARD DWARF BEARDED

Brassie	Warburton	16
Lilli-White	Welch	9
Dale Dennis	Dennis	7
Pagan Midget	Douglas	5

INTERMEDIATE BEARDED

Kiss Me Kate ..	Paul Cook	25
Blue Asterisk	Greenlee	6
Dateline	Jonas	5
Pink Debut	Jonas	5

MINIATURE TALL BEARDED (TABLE)

Parakeet	Roberts	5
Pee Wee	Williamson	5

BORDER BEARDED

Wee Bit	Lowry	11
Pearl Cup	Knowlton	9
Cricket	Knowlton	5

LOUISIANA IRISES

Mistis	MacMillan	10
Storm Signal	Holleyman	9
Puttytat	Arny	7
Chuck	Arny	6
Kissie	Arny	6
Amethyst Star	DuBose	5
Delta Treasure	Mathews	5

SPURIA IRISES

Gay Lark	Walker	11
El Camino	Walker	9
Blue Corsage	Corliss	7
Big Cloud	T. Craig	6
Golden Lady	Combs	5
Violet Veil	Walker	5

SIBIRICA IRISES

Royal Ensign	H. F. Hall	16
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EUPOGOREGELIA IRISES

Saffron Charm	Benbow	7
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HIGH COMMENDATION

<i>Originator</i>	<i>Variety</i>	<i>Votes</i>
Bartholomew	Blue Parasol	7
Benson, C.	Henry Shaw	10
	Jean Sibelius	14
	56-14	7
	57-8	8
	58-5	8
	58-5C	8
Benson, Z.	Blue Mesa	12
	Little Dude	12
Branch	Dark Stranger	8
	Piety	9
	Royal Image	9
	57-05	8
Brizendine	White Heiress (102-54)	7
Brother Charles	51-33	5
	56-12	12
Buttrick	54-47	11
Chamberlain	58-1	8
Collier	Gay Texan	5
Conrad	0-5-1	12
Cook, Paul	Emma Cook	11
	Toll Gate (140-55)	5
	123-57	6
	216-55	25
Corey	9N-2	5
	11S-1	7
DeForest	Dawn Crest	12
Deru	T-52-20	5
Doriot	A-29-57	5
	A-34-57	5
Dormon	Green Tracery	5
Dubes	54-23-1	8
	54-71-1	10
Emery	Silver Palomino	9
	58-25	7
	58-19	7
Fass	Wedding Ring	24
Fay	56-26	10
	57-9	11
	57-18	5
Freudenberg	55-75	11
Frey	Belton Beauty	20
Galyon	Fire Chief	14
Gaulter	56-20	6

<i>Originator</i>	<i>Variety</i>	<i>Votes</i>
Hall, D.	54-34	8
Hall, T.	Onondaga	12
Hamblen	H5-12	12
	H53-18-1	5
	H4-50B	6
Harder	403-3	5
Harrell	City Lights	7
Hinkle	H-7-1	5
Hodges	Hoangho	5
Holleyman	Plain Folks	5
	Royal Lady	7
Jones	232	5
	43-1	6
Kehr	56-1	20
Kleinsorge	432	7
Knowlton	Mayflower	8
	53-29A	6
Lapham	Forward March	6
Lewis	Blackness	5
Lowry	L55-3	6
Lyon	53-7-9	6
	54-34-2	6
	54-42-6	7
Muhlestein	55-10	15
	57-111	6
	57-111A	6
Muhlestein-Waters	WAD56 (VG56)	18
Naas	Swirling Snow	5
Olson	50-20A	10
	858-C	8
	10-58-A	8
Plough	107-57-A	6
	Cloud Dancer	6
	Edenite	10
Porreca	Lilac Festival	5
	140	10
	143	5
	226	11
	243	6
	191	12
Quadros	Lady Angie	5
Quist	C-81	5
Randolph	R-51-258	9
	54156-1	22
	55-48-1	6

<i>Originator</i>	<i>Variety</i>	<i>Votes</i>
Redman	58-1	5
Rees	56-90	8
	56-100	5
Roberts	Dancing Bee	5
Rogers, Glenn	55-16A	6
	51-121	7
Rogers, Guy	56-1	7
Schirmer, C.	Breathless	13
Schliefert	Wave Cap	19
Schmelzer	Captain Gallant	7
Schortman	Indiglow	13
	686	6
Schreiner	Brass Accent	7
	Gold Piece	7
	N-875-1	9
	O-508-1	7
Shaver	411-1	6
Smith, C.	Adorn	23
Street	54-S-20-1	8
Tharp	Top Helen	6
Tompkins	55-240	5
Varner	#40	6
Wall	56-77	5
Wallace	56-137-1	6
Warburton	C-539	5
Waters	Real Delight	14
	0-56	9
	1-57	6
	DP-58	12
Whiting	5221	9
	5422	11
Williams, F.	57-01	5
	57-05	8
Wills	Snow Tracery	6

Errata: Mr. Richard Goodman's address was incorrectly listed in Bulletin 149, April, 1958, Page 86. The correct address should read as follows: Richard Goodman, 253 Bloomingbank Rd., Riverside, Illinois.

THE SIXTH ANNUAL JUDGES' CHOICE—1958

Following are the results of the Sixth Annual Judges' Choice balloting. The voting this year was upon the Tall Bearded winners of the Honorable Mention award in 1957 and 1958. The ballot listed 133 names, 76 of which received honorable mention in 1958 and 57 which received honorable mention in 1957. These are the newest varieties in commerce which have had the recommendation of the accredited judges, ranging from 12 votes, the minimum requirement for honorable mention, to 50 votes for Violet Haven in 1957, and 72 votes for Whole Cloth in 1958. These newer varieties are the ones to watch for future popularity.

The Judges' Choice is still drawing a certain amount of criticism as to its merits, but 291 judges responded with ballots, 283 of which were counted and tabulated. This represents a 55% interest on the part of the judges. Each judge was asked to vote for not less than ten nor more than fifteen names on the ballot. The top 25 and the votes each received are:

<i>Rank</i>	<i>Variety</i>	<i>Votes</i>	<i>Rank</i>	<i>Variety</i>	<i>Votes</i>
1	Frost and Flame (D. Hall)	124	14	Memphis Lass (Schortman)	45
2	Butterscotch Kiss (Plough)	100	15	Rose Sails (Pierce) . . .	44
3	Lynn Hall (D. Hall) . .	96	16	Golden Anniversary (Walker)	43
4	Whole Cloth (Paul Cook)	88	17	Garden Gold (D. Hall)	42
5	Golden Garland (D. Hall)	85	18	Beth Corey (Watkins) . .	41
6	Violet Haven (Reynolds)	57	19	Amethyst Flame (Schreiner)	40
7	Frilly Fringes (Bro. Charles)	51	—	Lipstick (Fay)	40
—	Valimar (Hamblen) . . .	51	21	Fire Brigade (Schreiner)	39
9	Caribou Trail (Plough)	50	—	Grand Teton (DeForest)	39
—	Exotic Blue (Randolph)	50	23	Allegiance (Paul Cook)	38
11	Glittering Amber (Hamblen)	49	—	Inverness (Watkins) . . .	38
12	Bronze Bell (Schreiner)	48	—	Nashborough (Wills) . .	38
13	Celestial Snow (Bro. Charles)	46	—	Purple Haven (Reynolds)	38
			—	Waxing Moon (Fay) . . .	38

Runners-up receiving 30 or more votes: Biscay Bay and Tallchief, 36; Demetria, 35; Channel Islands, Golden Crown, Olympic Torch, and Top Favorite, 32; Charmed Land, Lady Elsie, Riviera, Snow Ballet, and White Bouquet, 31; Lois Craig and Princess Anne, 30.

POPULARITY POLL 1958

The Nineteenth Official Symposium

Following are the results of the Popularity Poll conducted by the members of the American Iris Society to determine the one hundred favorite iris varieties of the year, from 414 varieties listed on the ballot. A total of 1490 ballots were voted.

For the first time in the seven years that the Symposium has been open to the vote of the entire membership, and for the second time in the whole history of the Symposium, the current Dykes Medal winner heads the Symposium list. Following is a tabulation of the Symposium positions held by Dykes Medal winners in the year of their award:

<i>Symposium</i>			<i>Symposium</i>		
<i>Year</i>	<i>Dykes Winner</i>	<i>Position</i>	<i>Year</i>	<i>Dykes Winner</i>	<i>Position</i>
1940	Wabash	1	1950	Blue Rhythm	2
1941	The Red Douglas . .	6	1951	Cherie	4
1942	Great Lakes	3	1952	Argus Pheasant . . .	37
1943	Prairie Sunset	3	1953	Truly Yours	65
1944	Spun Gold	3	1954	Mary Randall	20
1945	Elmohr	2	1955	Sable Night	16
1946	None	—	1956	First Violet	24
1947	Chivalry	2	1957	Violet Harmony . . .	11
1948	Ola Kala	6	1958	Blue Sapphire	1
1949	Helen McGregor . . .	4			

Only 7 of these Dykes winners have been in the No. 1 position at any time: Wabash 1940-41-42, Great Lakes 1943-44-45-46, Ola Kala 1947-48-49-52-53-54, Chivalry 1950, Blue Rhythm 1951, Truly Yours 1955-56-57, Blue Sapphire 1958. Fifteen of them still appear in the 1958 first hundred.

Fourteen newcomers have found their way into the list for the first time. They are: Taholah (60), Deep Black (63), Frost and Flame (63), Eleanor's Pride (71), Galilee (73), Butterscotch Kiss (76), Patrician (77), Apricot Glory (80), Beechleaf (89), Carmela (92), Dreamy (95), Lavenesque (97), Golden Garland (97), and Pink Enchantment (99).

Those they replace are Blue Valley, Blumohr, Bryce Canyon, Dark Boatman, Ebony Echo, Firecracker, Fox Fire, Helen Collingwood, Lady Boscawen, Maytime, Paradise Pink, Pretty Quadroon, Ranger, and Ruffled Organdy.

The favorite one hundred this year, their position last year, and the votes cast for each are:

<i>Position</i>	<i>Variety</i>	<i>Votes</i>	<i>Position</i>	<i>Variety</i>	<i>Votes</i>
1958	1957	1958	1958	1957	1958
1	5	Blue Sapphire	5	4	Palomino
2	11	Violet Harmony . .	6	2	Happy Birthday . .
3	1	Truly Yours	7	6	First Violet
4	3	Mary Randall	8	9	Sable Night
		674			630
		658			601
		654			527
		637			479

<i>Position</i> 1958	<i>Position</i> 1957	<i>Variety</i>	<i>Votes</i> 1958	<i>Position</i> 1958	<i>Position</i> 1957	<i>Variety</i>	<i>Votes</i> 1958
9	14	Limelight	436	—	35	Thotmes III	181
10	7	Argus Pheasant	432	54	47	Cherie	168
11	10	Pierre Menard	431	55	29	Zantha	165
12	8	Ola Kala	391	56	45	Great Lakes	163
13	15	Chivalry	386	—	53	Port Wine	163
14	17	Inca Chief	367	58	38	Chantilly	162
15	12	Pinnacle	361	59	65	Extravaganza	160
16	34	June Meridith	340	60	New	Taholah	158
17	13	Elmohr	335	61	49	Cascade Splendor	157
18	25	Rehobeth	303	62	73	Golden Russet	149
19	20	Frances Craig	302	63	78	Crispette	148
20	31	Cliffs of Dover	297	—	New	Deep Black	148
21	19	Blue Rhythm	296	—	New	Frost and Flame	148
22	18	New Snow	293	66	91	Wedding Bouquet	147
23	27	Snow Flurry	282	67	60	Caroline Jane	145
24	22	Black Hills	280	—	58	Gold Sovereign	145
25	59	Black Taffeta	272	69	24	Desert Song	144
—	23	Swan Ballet	272	—	64	May Hall	144
27	28	Starshine	239	71	New	Eleanor's Pride	143
28	21	Char-Maize	235	72	57	Solid Mahogany	142
29	38	Cathedral Bells	234	73	New	Galilee	141
30	55	Techny Chimes	228	—	63	Mulberry Rose	141
31	30	Top Flight	227	75	78	Majorette	139
32	26	Blue Shimmer	224	76	New	Butterscotch Kiss	138
33	16	Lady Mohr	223	77	New	Patrician	137
34	56	Cascadian	220	—	60	Pink Formal	137
35	66	Sierra Skies	215	79	97	Harbor Blue	135
36	52	Ballerina	209	80	New	Apricot Glory	133
37	37	Spanish Peaks	208	—	70	Mystic Melody	133
38	35	Jane Phillips	207	82	68	Temple Bells	131
39	41	Wabash	206	83	87	Sunset Blaze	130
40	42	Lady Ilse	205	—	77	Queen's Lace	130
41	45	Melody Lane	203	85	78	Raspberry Ribbon	128
42	48	Tranquility	202	86	75	Amigo	126
43	44	Sable	201	87	71	Frances Kent	125
44	50	Solid Gold	200	88	94	Big Game	124
45	43	Cahokia	195	89	New	Beechleaf	123
46	51	Cloudcap	186	—	84	Black Forest	123
—	62	Party Dress	186	91	67	Dreamcastle	119
—	40	White Peacock	186	92	New	Carmela	118
49	33	Amandine	184	—	95	Native Dancer	118
50	69	Regina Maria	183	—	83	Pink Cameo	118
				95	New	Dreamy	117
51	32	Minnie Colquitt	182	96	72	Casa Morena	116
52	53	Helen McGregor	181	97	New	Lavanesque	113

<i>Position</i>	<i>Variety</i>	<i>Votes</i>	<i>Position</i>	<i>Variety</i>	<i>Votes</i>
1958	1957	1958	1958	1957	1958
—	New	Golden Garland . . 113	100	92	Cloth of Gold 109
99	New	Pink Enchantment 110	—	86	Rocket 109

Please note that the number of this symposium has been changed from “eighteenth” as published on the ballots and the flyer to the membership, to “nineteenth,” which it actually is by count from the first one published for 1940 in Bulletin No. 77. Symposiums have since been published in Bulletins 81, 85, 89, 93, 97, 104, 108, 112, 116, 121, 124, 128, 131, 135, 140, 143, 147, and this one in 151. The one in Bulletin 128 was correctly called the thirteenth. The ones in Bulletins 131 and 135, which would have been fourteenth and fifteenth were not numbered. The one in Bulletin 140 was called the fifteenth when it should have been the sixteenth, and this lag of numbers carried on in Bulletins 143 and 147. The number is probably of no great importance, since each symposium has been identified with the year in which it was taken. For those who like fine little details, it is suggested that you go back to Bulletins 140, 143, and 147, and advance the numbers of the symposiums by one.

ERRATA: In the preliminary awards flyer to the membership, a few errors were discovered or called to my attention. These changes have been made for bulletin publication; under Honorable Mention—credit for Royal Ensign changed from T. Hall to H. F. Hall. Under High Commendation: Brother Charles 55-33 changed to 51-33, Deru J-52-20 changed to T-52-20. Deru A-29-57 deleted. Hinkle Curl’d Cloud deleted—had H.C. in 1957. Schaffer Heather Dell deleted—had H.C. in 1956. Also discovered were instances where a seedling got H.C. under name in 1958 when it had previously had H.C. under its number. No changes are being made for these.

JAY C. ACKERMAN
Chairman, Awards Committee

NEW PUBLICATION

A new publication entitled *Problems in Purchasing and Opportunities in Selling Iris* has just been released by the New Hampshire Agricultural Experiment Station as Agri. Econ. Research Mimeo. No. 17. This was written by L. A. Dougherty and is part of North Eastern Regional Project NEM-15, “Improved Marketing of Ornamental Nursery Products.” Copies will be sent, as long as available, without charge on request by those who are engaged in or interested in selling iris. Write L. A. Dougherty, Morrill Hall, University of New Hampshire, Durham, N. H.

EXHIBITION COMMITTEE REPORT 1958

This year eighty iris shows in thirty-three states have been held in co-operation with the American Iris Society, and have applied for the Society's awards. The magnitude of the iris show can be demonstrated by the fact that the records show that more than 3200 people exhibited in these shows. We have no estimate of how many people attended these shows, but the total must run into many thousands.

We wish it were possible to write about every show, but for the present we will have to content ourselves with a report of the winners, and a few remarks about the highlights of the reports as they came in. We hope by next year to have a report that will include the winning artistic arrangement; and that the Regional Vice-Presidents, in their annual report, will supplement what we cannot do in reporting on the shows.

The Sacramento show, with its 1500 entries, and its thousands of visitors, has stamped itself as one of the great flower shows of America. But its claim to fame is based on more than a great number of entries; here was a flower show studded with educational features. Among them was the entry of the Melrose Gardens, showing thirty-three years of historical development of the pinks; and the entry of DuBose and Hager, showing the same development in blues and violets, with many of the collected or original varieties, including *I. pallida*, collected wild in Europe.

Shreveport, Louisiana, with 759 entries; Kansas City, Missouri, with 655 entries; Elmhurst, Illinois, with 599 entries; Minneapolis, Minnesota, with 584 entries; Albuquerque, New Mexico, with 549 entries; Rome, Georgia, with 500 entries; Wichita, Kansas, with 463 entries; and Twin Falls, Idaho, with 407 entries, were among the largest shows.

Wichita had a total of 115 exhibitors; Rome, Georgia, 85 exhibitors; Oklahoma City, 82 exhibitors; and Macon, Georgia, 75 exhibitors.

It is interesting to note that many of the smaller shows are staging their iris show around a theme, and that they are going to great effort to beautify the hall in the spirit of the theme. We were particularly impressed with the reports, newspaper accounts, and pictures of the Garden City, Kansas, and the Atkinson, Nebraska, shows. A large number of shows, both large and small, really deserve special comment.

It always is of interest to know which iris won the Queen of the Show award. This year Chivalry and Pierre Menard won that coveted award four times each. Three-time winners were Mary Randall, Starshine, Violet Harmony, and Truly Yours. The double winners were Blue Frills, Desert Song, Lady Boscawen, Leading Lady, New Snow, Sky Ranger, Snosheen, and Zantha.

The list of awards for this year follows:

Phoenix, Arizona	Harold Odle, Box 1072, Wickenburg, Arizona
Los Angeles, California	Philip G. Corliss, Somerton, Arizona
Sacramento, California . .	Sidney DuBose and Ben Hager, Modesto, Calif.
Rome, Georgia	Weaver Gardens, Bells Ferry Rd., #2, Rome, Ga.
Lewiston, Idaho	Eva Smith, 614 Dryden Ave., Lewiston, Idaho
Twin Falls, Idaho	Mrs. Estelle Ricketts, R. 3, Jerome, Idaho
Indianapolis, Indiana	John Berry, 2340 N. Tibbs, Indianapolis, Ind. Carl Leisure, 305 E. Main, Indianapolis, Ind.
Minneapolis, Minnesota . . .	Mrs. Alice Foss, 6045 St. Croix, Minneapolis 22, Minnesota
Jackson, Mississippi . . .	Mrs. Harmon Alley, R. 2, Box 182, Clinton Blvd. Jackson, Mississippi
Kansas City, Missouri	Mrs. Reuben Sell, 5628 Goodman Road, Merriam, Kansas
Norfolk, Nebraska	Mrs. Arnold Freudenburg, 706 So. 8th St., Norfolk, Nebraska
McAlester, Oklahoma	Mrs. T. H. Farmer, Hugo, Oklahoma
Tulsa, Oklahoma	Mrs. D. E. Chapman, 3145 So. Rockford Drive, Tulsa, Oklahoma
Woodward, Oklahoma	Arnold L. Woodall, 1311 Kansas Avenue, Woodward, Oklahoma
Portland, Oregon	Ronald Beattie, Rt. 3, Box 535, Canby, Oregon
Vermillion, South Dakota . . .	Clifford Smith, 113 No. University Ave., Vermillion, South Dakota
Dallas, Texas	Mrs. Mary Jane Redmon, R. 6, Box 75, Irving, Texas
Dallas, Texas	M. W. Norton, Jr., 4215 Rosa Road, Dallas, Texas
Gainesville, Texas	Mrs. Hubert White, 908 So. Clements, Gainesville, Texas
Temple, Texas	E. M. Doerfler, 1218 South St., Temple, Texas
Opportunity, Washington	Norris Carter, E. 17815 Appleway, Greenacres, Washington

Phoenix, Arizona	Sacramento, California
Dr. Philip Corliss: 5456, Pharaoh, Heart of Blue, White Branch, Gold Beacon	Dave Childs: A 83 Walter Luihn: Mohrning Haze
Huntsville, Alabama	San Jose, California
W. T. Bledsoe: 15823	Mrs. I. Harner: 54-1-E
Los Angeles, California	Boise, Idaho
J. E. Tearington: CC-551 W. H. Webster: 57-18, 58-17	Glen Morris: 37-23-55
	Bluffton, Indiana
	Mrs. C. W. Naas: 300-51 Mrs. D. Jonas: 1157, 834-1, 2-877

Indianapolis, Indiana Bonnie Dunbar: 58-193A, 58-250A Earl Roberts: C-13 Mrs. Ora Smith: 12-49	Long Island, New York Edwin Rundlett: B-99
Marshalltown, Iowa Mrs. Wanda Markey: 5702	Dayton, Ohio Dorothy Richards: 45 A, 55 A
LaCrosse, Kansas Dr. Lewis Clevenger: Mary Lou	Kingwood Center, Ohio W. F. Brinker: T 8-55 Paul Brink: 56 Mrs. Fred Thaler: 58-47
Wichita, Kansas Hugo Wall: 56-77	Springfield, Ohio Dr. V. R. Frederick: 1-58 Dr. A. B. Ream: 55-4
Louisville, Kentucky Mrs. V. E. Teeter: 56-119-1 Al Von Allme: 53-11, 55-10	Woodward, Oklahoma A. R. Woodall: 56-205-12 Andy Burton: 56 Paul Cherry: PC 9
Worcester, Massachusetts Armand Benoit: A-10	Gainesville, Texas Mrs. Hubert White: Jodi
Kalamazoo, Michigan John Briggs: C-5248, C-5188, C-5449 Rosyl Savage: SG 51, SB 29, SB 4, Isle Royal, SC 20, SB 21	Orem, Utah M. Wallace: White Lace
Minneapolis, Minnesota Victor Hartkopf: (Jane Phillips x Chivalry)	Salt Lake City, Utah Luzon Crosby: C 56-39A, C 56-11, C 56-20 Bion Tolman: 55-42-11, 53-36-1 Raymond Solomon: 50-11-B-2 Tell Muhlestein: 58-16 Jeanne B. Fenton: 57-11 Carl A. Larsen: 51-5 C 6 John English: 57-1
Kansas City, Missouri Suzanne Minnick: 56-26-2-S C. H. Lewis: Blackness Robert G. Kirkland: 50-23	Tacoma, Washington Mrs. J. L. Hunt: 54 A 2
Norfolk, Nebraska L. Freudenberg: 57-40, 52-36, 56-14 Kay Carstensen: C-1-51	Milwaukee, Wisconsin A. G. Blodgett: 58-60, 55-65 Alfred Mueller: 51-07 Mrs. R. Reinhardt: 55-25, 51-99 Mrs. H. W. Goodrick: 58-24
Omaha, Nebraska Robert Kehr: 56-1 George Dubes: 50-27-1 G. E. Redman: 58-1 Clifford Smith: Adorn	
Albuquerque, New Mexico Eugene Sundt: 5532-7B, 5401- 6C, 5532-8A, 5651-8A L. H. Shivel: 1557-R	

<i>Place of Show</i>	<i>Winner Silver Certificate</i>	<i>Winner Bronze Certificate</i>	<i>Best Specimen of Show</i>	<i>Exhibitor</i>
ALABAMA Huntsville	Mrs. Jack Lucas	Mrs. C. W. Knight	White Tower	Mrs. C. W. Knight
ARIZONA Phoenix	Ralph Johnson	Dr. Philip Corliss	White Branch	Philip Corliss
ARKANSAS Fort Smith	Mrs. A. A. Robertson	Mrs. Jack Tanner	Helen McGregor	Mrs. Jack Tanner
CALIFORNIA Modesto Los Angeles Sacramento San Jose	Earl Snyder W. H. Webster Glenda Childs Kay Peterson	Rachel Gaub Philip Corliss Mrs. Chris Parks Joseph Ghio	Master Charles White Ruffles Star Shine Born Yesterday	Mrs. Earl Snyder S. A. Phillips Mrs. Sam Burnett Mildred Scott
COLORADO Denver	Everett Long	Roy Rodgers	Star Shine	Roy Rodgers
GEORGIA Macon Rome	Mrs. W. H. Oliver Mrs. G. L. Hight	Mrs. E. R. Adams Mrs. George Sherman	Pierre Menard Chamois	Mrs. O. S. Neylans Mrs. G. L. Hight
IDAHO Boise Lewiston Twin Falls	Ruby Lindsey Mrs. W. A. Jacobs Mrs. Floyd Bandy	Mrs. B. F. Lindley Mrs. Floyd Pond Mrs. S. W. Smith	Sky Tint Mary Randall Blue Frills	Ernest Kendall Mrs. W. A. Jacobs Mrs. Floyd Bandy
ILLINOIS Elmhurst	Mrs. E. E. Varnum	Lerton Hooker	Chivalry	Donna Danielson
INDIANA Bluffton Indianapolis Newcastle	Mrs. Pauline Kumfer Paul Antrim Mrs. Roscoe Keesling	Mrs. Davis Mills Earl Roberts Mrs. Herschel Brinson	Chivalry Sky Ranger Orange Man	Larry McFarren Mrs. R. C. Chappell Mrs. Carl Johnson
IOWA Marshalltown	Mrs. Emmet Williams	Mrs. Edgar Jacobson	Blue Rhythm	Mrs. E. Jacobson

<i>Place of Show</i>	<i>Winner Silver Certificate</i>	<i>Winner Bronze Certificate</i>	<i>Best Specimen of Show</i>	<i>Exhibitor</i>
KANSAS				
Garden City	Floyd Jones	Mrs. John Hanneman	New Snow	Mrs. D. Pinegar
Hutchinson	I. B. Patterson	Mrs. M. C. Benjamin	Royal Sovereign	Mrs. H. Spence
Liberal	W. A. King	Mrs. J. H. Salley	Violet Harmony	W. A. King
Parsons	Mrs. E. L. Clayton	Margie Gilpin	Lady Boscawen	Margie Gilpin
Rush Center	Mrs. Glenn Booth	Mrs. Gladys Peterson	Matula	Mrs. Glenn Booth
Wichita	Mrs. Beth Martin	Mrs. Thelma Schwinn	Mexico	Mrs. Orville Baker
KENTUCKY				
Bardstown	Jack Briggs	Mrs. Edward Welch	The Capitol	Jack Briggs
Louisville	Mrs. C. D. Overholser	Mrs. Hubert Durbin	First Violet	Mrs. H. M. Strassel
LOUISIANA				
Shreveport	Ed Dickinson	R. A. Edmonds	Violet Grace	Ed Dickinson
Shreveport	Mrs. E. L. Wenk	Mrs. Roy Davis	Tiffany	Mrs. F. H. Adams
MASSACHUSETTS				
Boston	J. R. Harrison	Mrs. F. P. Lowry	Truly Yours	Leola Fraiin
Worcester	George Pride	E. M. Westgate	Black Hills	Kenneth Stone
MICHIGAN				
Flint	Mrs. Walter Pigott	Mrs. J. D. Wolcott	Spanish Peaks	Mrs. Walter Pigott
Kalamazoo	Mrs. Donald Sargent	Mrs. Teresa Britton	Desert Song	Mrs. Harry Phillips
Mio	Verda Stonebreaker	Laurel Lawe	Truly Yours	Laurel Lawe
MINNESOTA				
Minneapolis	Mrs. Alice Foss	G. B. Gable	Vatican Purple	G. B. Gable
MISSISSIPPI				
Jackson	Mrs. A. K. Primus	Mrs. M. W. Stone	Violet Harmony	Mrs. L. Upshur
MISSOURI				
Columbia	A. K. Kirby	B. H. Frame	Snosheen	A. K. Kirby
Kansas City	Glenn Rogers	Mabel Fitch	Wedding Bouquet	C. R. Minnick
Flat River	Elvan Roderick	Mrs. Bert Moyers	Lemon Ice	Elvan Roderick
Washington	Agnes Meyer	Mrs. E. Roehrs	Leading Lady	Gordon McDaniel

<i>Place of Show</i>	<i>Winner Silver Certificate</i>	<i>Winner Bronze Certificate</i>	<i>Best Specimen of Show</i>	<i>Exhibitor</i>
MONTANA				
Polson	Charlotte Rahte	Julia Smart	Pretty Quadroon	Charlotte Rahte
Missoula	Mrs. C. B. Spohr	Mrs. M. A. Price	Dawn Reflection	Mrs. C. B. Spohr
NEBRASKA				
Atkinson	Mrs. Alfred Martens	Mrs. George Frohardt	Blue Marvel	Mrs. A. Martens
Crete	Mrs. Joe Macholan	Mrs. Wm. Javorsky	Golden Fleece	Mrs. Wm. Javorsky
Norfolk	Henry Brees	Mrs. N. S. Pedersen	Chivalry	Henry Brees
NEW JERSEY				
High Bridge	Mary Waiss	Mrs. Ralph Berkson	King's Jester	Mrs. George German
Westfield	Mrs. C. A. Robinson	Frank H. Lewis	Sky Ranger	Mrs. S. V. Stewart
NEW MEXICO				
Albuquerque	Mrs. Eugene Sundt	Wade Palmer	Duke City	Mrs. Frank Spencer
NEW YORK				
Three Islands	Harry Kuesel	Carl Brewster	Pierre Menard	Eva Liebegott
Syracuse	Mrs. F. J. Mapes	L. F. Randolph	Cascade Splendor	
NORTH CAROLINA				
Canton	Stella Bottoms	Mrs. W. Kirkpatrick	Pierre Menard	Frank Vctoc, Jr.
OHIO				
Dayton	Mrs. H. S. Shinkle	Mrs. C. W. Schmalstig	Medicine Man	Mrs. H. S. Shinkle
Mansfield	Frank McKee	Mrs. Fred Thaler	Tryst	Frank McKee
Urbana	Mrs. V. R. Frederick	Lee Eberhardt	Blue Frills	Mrs. L. J. Hare
OKLAHOMA				
Enid	Mrs. A. W. Lietz	Hugh Wilson	Violet Harmony	Mrs. Merle Moore
Lawton	Mrs. Ed Kurtz	Mrs. Rex White	Pierre Menard	Mrs. Rex White
McAlester	Mrs. O. H. Whitt	Mrs. W. C. Cole	Mary Randall	Mrs. M. G. Weldon
Muskogee	Mrs. L. B. Creekmore	Mrs. E. D. Gossett	Golden Ruffles	Veda Wakefield
Oklahoma City	Mrs. Ed Kurtz	Mrs. Ted Thompson	Misty Gold	Mrs. Ann Hough
Sentinel	Mrs. C. C. Clark	Mrs. C. G. Gardner	Leading Lady	Mrs. C. G. Gardner

<i>Place of Show</i>	<i>Winner Silver Certificate</i>	<i>Winner Bronze Certificate</i>	<i>Best Specimen of Show</i>	<i>Exhibitor</i>
Tulsa Woodward	Mrs. Joe Evans William Frass	Mrs. Carl Lea Alice McLaughlin	Pink Cameo Zantha	Mrs. C. E. Kenny Mrs. D. Harden
OREGON Grants Pass Portland	Lily Dusenberry Mrs. Delbert French	Beulah Ganoung Mrs. Earl Bowyer	Louvois Pinnacle	Mrs. R. Dusenberry Mrs. Earl Bowyer
SOUTH DAKOTA Britton Vermillion	Mrs. Frank Mock Mrs. A. L. Wilson	Mrs. Anna Beck Mrs. Elmore Leikvold	Port Wine Galatea	Mrs. Anna Beck Mrs. Vince Montgomery
TENNESSEE Whitehaven	Mrs. C. A. Wyatt	Mrs. Nathan Bauman	El Paso	Mrs. Frances Carrington
TEXAS Belton Dallas Dallas Gainesville Midland Temple	Mrs. Doyle Gray Mrs. J. C. Jowell Mrs. Vernon Cox Mrs. Joe Leonard Mrs. A. E. Lynch Mrs. F. J. Kostohrys	Mrs. Joe Coker D. R. Kensel Martin McMillan Mrs. C. F. McCarty Mrs. John Braun Mrs. Cecil Biggs	Lady Boscawen Tabasco Golden Crown New Snow Zantha Star Shine	Mrs. J. W. Pittman H. F. Fulkerson Mrs. Vernon Cox Mrs. W. J. Buchner Mrs. Gordon Briston Mrs. F. J. Kostohrys
UTAH Ogden Salt Lake City	Mrs. Mayme Jessop M. D. Wallace	Mrs. Louis Deru L. E. Swanson	Truly Yours Mary McClellan	Mrs. Mayme Jessup Jesse Fox
WASHINGTON Bellingham Opportunity Pasco Richland Tacoma	Ina Pebley Mrs. Leslie Davis Richard Rosenfels Gerhard Carlson Mrs. W. R. Hubbard	Mrs. Rosa Stewart Mrs. Warren Walker Gerhard Carlson Edith Bromley Mrs. Joseph Hunt	Golden Sunshine Desert Song Snosheen Chivalry Pretender	Ina Pebley Mrs. C. W. Countryman Gerhard Carlson Mrs. G. P. Stein Mrs. Joseph Hunt
WISCONSIN Milwaukee	Mrs. Robert Reinhardt	Arthur Blodgett	Mary Randall	Roger Hoar

1958 VARIETAL COMMENTS

From the Carolinas to the Dakotas

RALPH AND HELEN LEWIS, Durham, N.C.

We were fortunate enough this year to see more iris and judge their performance in more varying locations than usual. Here in North Carolina the Greensboro-High Point meeting of the North Carolina Iris Society led us through the Harold Alexander, O'Brien, Parham, and Paquet gardens. In "little" Washington, N.C., we saw some fine seedlings at the Ray Alexander and Osborn gardens; at Jackson, N.C., Scott Bowers had fine varieties superbly grown. Here in Durham we were in the Parker, Wilson, and Hohman gardens almost as often as our own. The fine iris grown by Loleta Powell and Wilma Oliver required several visits to Princeton and Pine Level; and a week-end in Norfolk, Va., and vicinity allowed us to note progress in the breeding programs at Mrs. Roberts' and Mrs. Aycock's, and appreciation of the fine selections of "Mickey" Kirby, Walter Smith, Mrs. Reed, Mr. Stanton, and the Ewells. Special mention should be made of the Del Haven Iris Exhibition Garden fostered by the Norfolk Iris Society and located at Mr. Boney's famous Azalea Gardens, where all garden enthusiasts will have an especially good chance to see fine iris.

Bluffton, Indiana was visited a week before the season's peak, but the Mary Williamson and Paul Cook gardens were a revelation and an inspiration. We hit Sioux City and Mapleton, Iowa and Vermillion, S.D., just at peak and were invited to join the Sioux City Iris Society tour for luncheon and to visit the Dubes, Young, Emery, and Ricker gardens. The next day was spent in the gardens of Cliff Smith at Vermillion and Charles and Agnes Whiting at Mapleton.

Obviously, we saw for too many seedlings to comment on all the worthy ones. Here are notes on a few:

5-55-A (C. C. O'Brien), (Happy Birthday X O'Brien 51-16 pink), a superb medium pink, fine wide branching, sturdy stalks, large well-formed flowers, ruffled, and of good substance.

5860 (L. Powell), (Midnight Blue X Blue Violet), a finished dark blue, much bluer than Midnight Blue but not so dark; fine form and good branching. This is well worth introduction.

Misty Orchid (Emery), a pale orchid-pink, ruffled and delicate in appearance, actually of unusually good substance, floriferous and well branched.

Emma Cook (Paul Cook), another of the Progenitor line, a superb flower with white standards and falls flushed blue at the throat, completely charming. (Paul has so many grand seedlings that the commentator is just lost).

571 (Whiting), a clear, clean deep rose-pink that is distinctly a new color and a grand iris.

Brooks (Lawson), this deep blue-violet has fine form, unusually flaring falls, good substance and branching, and the stalks are sturdy.

Adorn (Clifford Smith), one can see why this charming yellow and white was the top seedling at the Omaha show. Cliff has a winner here.

In commenting on named varieties, three 1958 introductions were so impressive as to deserve special comment. In order of seeing, not of preference:

Whole Cloth (Paul Cook), white standards, medium blue falls, a perfectly formed iris, moderately ruffled, and of fine substance on tall, well-branched stalks. This iris from Paul's Progenitor line is terrific. A "must have."

Violet Rhythm (Whiting), a grand big violet of fine form, beautiful ruffling, terrific substance; floriferous, tall, and perfectly branched in a season when most branching was well below average. Agnes won a D.M. on her Blue Rhythm. Here is another that will be a top contender. A "must."

Rejoice (Dubes), there are so many superb whites, but here is a new introduction that is really outstanding in a tough color class. Unusual substance, beautifully ruffled, floriferous. A grand new white.

Now to make a few comments on color classes:

Blacks: First Paul Cook's grand trio, Deep Black, darkest of all named iris, and Dark Boatman, both approaching black from the blue side, Sable Night from the red. And believe it or not, Paul has seedlings darker than these.

Black Delight (Sass-Ricker), a completely fine new black from one of our all-time great breeders.

Total Eclipse (Fay), is a huge black that we want very much.

Pinks:

Again a comment on three, Tell's fine pinks, Pink Enchantment, Pink Fulfillment, and June Meredith, are all truly excellent. For no real reason, we prefer June Meredith. On Stage (Lapham), the best-formed and most floriferous apricot pink we have seen. This should be more widely known and grown; it is a dandy.

Pink Clover (Whiting), in the named varieties of deep pink this is our present favorite, especially notable for its fine substance.

Fleeta (Fay), a truly fine iris and one that performs well wherever seen.

Native Dancer (Fay), another light peach-pink which gave fine form and unusually good performance.

Watermelon (Waters), we liked this unusual pink iris better every time we saw it. It seems to be a rather slow increaser.

Purples:

Two purple iris seem especially outstanding; Texas Way and Purple Haven are just about all that anyone could ask for.

Whites:

Swan Ballet (Tell), we saw this iris to advantage for the first time this year. It had been so highly praised that one wondered if it could possibly live up to advance notice. It did!

Snow Goddess (Becherer), it has everything. For the second in a row, just about the finest white grown in this section. Frost and Flame, certainly the best white with a red beard that we have seen. Other fine whites were: Wedding Bouquet, Dreamy, Arctic Splendor, Cliffs of Dover, Cascadian, White Charm (Ricker), Snow Swirl (Nass), and White Waves.

Violets:

Violet Haven (Reynolds), a very superior iris in every way. Form, substance and branching, good; clear, clean color. Good performance. Helen McCaughey (Wild), Really fine. Large size, nicely ruffled flowers on tall, well-branched stalks. A "must have" for us.

First Violet, this D.M. winner definitely performs better in the north than it does here where standards tend to be open. It is good.

Victoria (Whiting), until we saw Violet Rhythm this was our personal favorite—a splendid iris, especially notable for its ability to stand our hot sun longer than any iris we grow.

Plicatas:

The two top blue and white plicatas seen this year were both Sass iris: Dotted Swiss, the best blue and white plicata we have ever seen, and Dancing Ripples, which conforms to the classic pattern with lots of white and restrained use of blue markings, but is completely modern in form, size, ruffling and substance. We need more iris like this.

Tahola and Chumstick were grand red and cream plicatas.

Browns and Coppers:

Bold Copper, Dark Chocolate, and Thotmes III were the three in this general color class that impressed us the most favorably.

Reds:

Bang (Craig), very nice and a better than average performer here. Big Ute (Wallace), a tall deep rose-red that is most impressive.

Caldron and Fire Brigade (Schreiner), two fine 1957 reds with little to choose between them. Both are well worth while.

Coronation Red, a good one that deserves more attention than it has received. We liked it very much.

Tall Chief (DeForest), a big, tall red that stopped the show for us.

Huntsman (Sass), this deep red-black is fine in all respects.

Yellows:

Aspenglow (Loomis), a big iris with superb form and fine substance. Its coloring is so deep as to be orange rather than gold. Grand.

Orange Banner, a beautiful flower of fine form and substance. Riviera (Plough), a medium yellow charmingly ruffled and of fine form.

Golden Splendor (Dubes), in the deep yellow color class; this is certainly one of the most highly ruffled iris in commerce today.

Blues:

Blue Sapphire, after two seasons of superb performance everywhere, it fully deserved its D.M. A terrific performer.

Mary McClelland (Craig), one of the finest dark blues. A grand performer, unusually tall, strong stalks and very floriferous.

Sierra Skies (Schortman), a darker medium blue, very true in color, and superb in every respect.

South Pacific (K. Smith), a lighter medium blue that is probably the bluest of all. Very good in every way.

Regina Maria (Hinkle), this huge flower of superb form and substance is truly breath-taking.

Angel Curls (Branch), a perky, highly ruffled clear medium blue that is as good as anything in its color class.

Seamaster (Sass), a very true deeper blue; fine form, good substance, and restrained ruffling make for a superb flower.

Blue Haven (Reynolds), we like blues and this is our favorite of all the grand "Haven" irises.

Blue Marvel (Dubes), one of our favorites seen in all its glory in its home grounds.

Other fine blues seen were: Muted Music, Rehobeth, Pierre Menard, Soo-Preme Soo, Columbia, Cerulean, Beacon Hill, Biscay Bay, Joan Crawford, Monkshood, Kiki, Celestial Blue, Blue Hawaii, and Harbor Blue.

Others:

Kamiv (Schneider), beautiful tan blend in the Starshine class. Fine. Changing Lights (Sass), blending gold, brown, and yellow; it lives up to its name. We liked it very much.

Butterscotch Kiss (Plough), perhaps the most famous of Gordon's many superb blends, a really great iris.

Caribou Trail (Plough), equally fine but much darker in color than Butterscotch Kiss. We found this most attractive.

MISS HALLOWAY HONORED

Miss Harriette R. Holloway, Supervisor of Cedar Brook Park, Plainfield, New Jersey, was awarded a Distinguished Service Medal by the Garden Club of America at their forty-sixth Annual Meeting at York Harbor, Maine.

The Citation reads in part: "Distinguished Service in the Field of Horticulture. . . outstanding gardener, expert grower, authority on iris, daffodils, and peonies." Miss Holloway was cited for the "Cornus Arboretum (now reported to be the largest collection in the United States), the Iris, and other gardens in Cedar Brook Park.

VARIETAL COMMENTS

REGION 1

Miriam E. Corey—

Alpine Meadow (Stevens), an iris you will not fail to recognize. The light lavender-blue falls have a clearly defined narrow white edge; the hafts are bronzed. Standards are clean white.

Bar Harbor (Nesmith), rich blue-purple with a flare and deeper purple beard. Has a good stalk.

Call Me Madam (Nelson), if you like Mary Randall you will enjoy this taller variety of similar coloring, but with brighter garden value, due, perhaps, to the tiny blue patch below the beard.

Concord Town (Buttrick), in several clumps this white of opulent form, super substance, and smooth texture was very lovely. Growth and bloom were excellent, and the medium height is very pleasing.

First Curtain (Muhlestein), for the front of the border this pinker Party Dress-type is most attractive. The substance of the blooms is heavy, the color very clear and rich pink. It lasts long, as does Party Dress, and a clump should be very desirable.

Firenze (O. Brown), this rich, smooth violet-purple is striking, due to the tangerine beard. There are no haft markings and the stalk is good.

La Negra Flor (Crosby), very dark red-purple. The form is rather tailored, the texture smooth, and there are no haft markings. The stalk is tall and well branched, this on first year growth. Increase good.

Pink Confection (Muhlestein), very nice clear, deep pink in the low price range.

Riviera (Plough), large, ruffled yellow and white of wide parts. Very clean cut due to the bluish tint of the white-centered falls. Excellent performance on first-year plant.

Futuramic (Plough), planted beside Carmela, this was coming into full bloom as Carmela was finishing. Less of a self than Carmela, with tints of rose and buff, the form is very fine and the stalk beautifully branched. It is ruffled and has edging.

Gay Princess (O. Brown), very large, very flaring blooms of lemon-yellow, of heavy substance. The edges of both standards and falls are so heavily crimped they stand out in places in tiny "horns." Good growth on first-year plant.

56A (G. Leary), this most distinctive plicata must be mentioned although still under number. Seen in the Watkins garden, both form and coloring are unusual and lovely. Both ruffled and lace-edged, the erect standards are pale, clear lemon, marked in fine, pale chocolate color. The falls are centered lemon, edged and stippled in light, reddish chocolate. The white-tipped beard rests on a small white area. Great garden value and a lovely flower. Good stalk.

Shirley Spurr—

Exotic Blue (Randolph), soft grey-blue with hafts brushed bright olive, interesting dark beard tipped with the same olive, nice substance and form, unique color and effect.

Whole Cloth (P. Cook), beautiful blue and white amoena, falls smooth, clear, medium blue slightly ruffled and flared, white standards firmly closed, good substance and branching—an exciting color development.

Wedding Ring (Fass), large white with gold edges on falls and standards; gold deepens at haft, brilliant gold beard, well branched, substance good. A charming iris.

Green Fashion (Fass), attractive greenish tinted iris. One judge was heard to call it a Char-maize for the north.

Breathless (Schirmer), beautiful soft pink, heavy substance; large, broad, flared falls, matching beard.

Rare Gold (Schirmer), fine gold self, brilliant, good form, good substance. Splendid addition to the yellow class.

Glittering Amber (Hamblen), unusual coloring, pale creamy apricot with vivid golden hafts, falls ruffled and laced, both falls and standards edged with the gold, exquisite. Open standards keep it from pure perfection.

Pink Enchantment (Muhlestein), deep pink, almost a touch of raspberry in it, beard cerise. Good in every respect.

Ken (Rundlett), splendid blue self, extra good branching; the gold beard that lights up the strong medium blue makes it effective as a clump.

Francis H. Winkler—

OUTSTANDING IN RUTH STEPHENSON'S GARDEN

Major Eff, very large, ruffled, medium lavender-blue of great dignity but could be taller for its size.

Wide World, exquisite blue-white, with the blue in the heart of the flower radiating to white at the edges.

Garnet Royal, widely flared wine-red of regal stateliness, very broad stiff falls.

Chiquita, what an iris with which to end the season! Has size, form, personality. The standards are a cleaner lavender than Amigo's; the falls are a gayly ruffled pansy-purple with a lighter edge, and it stands without staking in wind.

OUTSTANDING IN DR. WARREN STEVENS' GARDEN

Sweet Afton, a clean, sweet blue-white, with ruffled horizontal falls, but not as tall or as large as I have seen it.

Truly Fair, a magnificent clump, tall, good pink in color, good form, a real eye catcher.

Bluebird Blue, a clean clear light blue, it made Butterfly Blue look washed out by comparison.



Wally Ziminski at work on indoor garden, part of elaborate display settings designed for the first iris show sponsored by the West Arkansas Iris Society, in Fort Smith, Ark., May 3 & 4, 1958.

IN MY OWN GARDEN

Golden Gleam, in a three-year clump, a glowing dull gold with ruffled almost horizontal falls, flowers profusely on tall well-branched stalks. White Peacock really performed up to expectation in spite of being moved last year (and the year before, moved here from southern California), and seemed completely at home in New England.

Ivory Work, Starshine-form in pale ivory and cream, an exquisite bloom with excellent one-year growth.

Paper Doll, neat white, wine-bordered plicata, a very clean pattern with gayly ruffled standards and falls, and it stands up serenely to strong wind.

Ken, not large or tall on a one-year plant, but a beautifully proportioned stalk and flower, the color a lovely dark blue on the order of Pierre Menard but more lively.

Snosheen, an excellent white in every way, which has been overlooked. If you want beauty combined with sturdiness, rapid increase, and a long season of bloom, this is it.

Storm Warning, its color is good but its standards open too far. "Positively indecent," said one visitor.

Kenneth Stone—

- Bazaar (Schreiner) caused much comment. Burgundy standards, closed and firm. Well-shaped and flaring falls, same color, with creamy white center area—a line of color down center of falls. Showy and clean.
- Golden Song (Lowry), this large yellow has superb form. Color is on the old gold—a few brownish marks noted on the falls which added distinction. Wide flare. Nice branching. A fine iris.
- Swan Ballet (Muhlestein), about as white as they come with white beard. Stalk a good height and large, full flowers well placed.
- Solar Maid (Sass), one of the deepest tones of yellow in a large full flower with flaring falls. Beard yellow—a rich and satisfying iris.
- War Paint (Dorothy Palmer), a brown iris, distinctive because of the brushings on the falls. Color deep at the haft, shading to lighter down the falls. Large and flaring with some ruffling.
- Inverness (Watkins), the whitest of white flowers, well spaced and of leatherlike substance. Stalk, good height. Made unforgettable effect in a garden clump.
- Total Eclipse (Cook), somewhat resembles its parent Black Hills—same deep color, but several times larger. Striking on one-year plant.
- First Flight (Plough), violet, beautifully formed flowers have an interesting greyish buff area part way down the falls. Crimped and fluted edges. An intriguing iris.
- Watkins (53-38), recently named London Town. Large flower, light blue, extra heavy substance, closed standards, wide falls with flare, pale blue beard. Reminds a little of Rehobeth—both have their own individuality, however.

Irene Perkins—

- Revel (Sass 1956), pure white, small brushing of yellow on haft, almost horizontal falls, standards ruffled and perfectly closed, geranium beard, very tall, excellent substance; a lovely and interesting flower.
- Starlit Hour (Tompkins 1955), extra large, widely formed plicata; lavender ground which is solidly colored, not brushed; ground of standards and falls is same with slightly darker feathering around both; a fine quality flower and interesting because of the new ground color.
- Sea Master (Sass 1956), large beautifully formed Moorish blue, waved and tall, well branched and heavily substanded. Outstanding in its class.
- Riviera (Plough 1957), large, clear and clean pale yellow with wide well rounded and heavily ruffled standards and falls. It has fine substance and branching, and is an unusually lovely flower.
- Butterscotch Kiss (Plough 1957), fine flower of butterscotch yellow with heavy lace and crimping all around the edges; even the ends of the style-arms are frilly. There is a deeper glow of color in the center of the flower which is clean and clear. Very beautiful.
- Concord Town (Buttrick 1958), huge, beautifully formed, widely flaring flower of pure white with a pale yellow beard. It has some ruffling,

- excellent branching, and the heavy substance needed to support its large size.
- Winter Sunrise (Corey 1958), creamy white blooms with a flush of gold and gold veining on the hafts; medium-sized slightly flaring flower of excellent substance. A fine iris in every way.
- Heather Mist (Lowry 1957), very nice clean orchid-lilac with extra heavy ruffling. It has excellent substance and a strong stalk, as it stood up bravely in the high winds on the visit to Kenneth Stone's garden.
- Sarah Fowler (Watkins-Watkins 1958), very clear medium blue with a silvery sheen, closed standards and arched falls. The beard is white tipped with blue, the substance is fine, and whole flower has a lively shimmering appearance.
- White Foam (Knowlton 1958), large, ruffled pure white, with white-tipped yellow beard, standards closely held and falls semi-flaring; the heavy ruffling gives the flower a lilting appearance, while it actually is very well subenced on strong stalks.
- Gail (Mrs. Ray Jensen 1956), large ruffled apricot of good quality. Similar to Top Flight but larger and more heavily subenced; very fine, and noticeable because there are so few good iris in this color class.
- Crystal White (Nesmith 1957), very clear white with an unusual amount of ruffling and frilling; standards well closed, falls arched, substance good; a flower with a lot of personality and one which is beautiful in the clump.

Varietal Comment—Dwarf and Median

Bee Warburton—

- Tara (Grapes '57), another of the Grapes tinies, this one is very early in sprightly coloring of brick-red with brownish markings, most dainty flaring form and grassy foliage.
- Brownnett (Roberts '57) much resembles its parent, Carpathia, but is more contrasty in its variegata coloring, a very neat pumila type, also extra early.
- Little Charmer (Alta Brown '57) is another pumila type, small and very free-blooming in greenish yellow with a green spot.
- Pumar Alpha (Ackerman '58), this bright yellow from the first known cross of pumila with arenaria is an improvement on both parent types, being of excellent habit, of clear bright color, and a long period of bloom. Five inches.

These four are small and early types excellent for the small rock garden where only the choicest of plants are wanted. In the larger and later dwarf types:

- Fashion Lady (Welch '57) is ruffled and flaring in a lovely shade of orange yellow; this one is branched, giving three buds for a long period of bloom. Eight inches.

Dancing Bee (Roberts '57), a child of Brite, this one has cream standards and solid lavender-blue falls without edging, in the form of its parent. Very free-blooming and about 10 inches tall.

Randolph R5319-1, this one is a yellow and green bicolor and shows the smoothest green yet seen in irises on its falls. It is about 10 inches tall, of wide parts and flaring form nicely tailored, from ((Green Spot x Tony) X Green Spot).

Inky (Reinhardt '54) is a sleeper, with the lovely wide flaring form of Black Baby, but taller and even darker—about nine inches.

New ones in the other Median types:

Parakeet (Roberts '58) is that rarity, a new Table iris, with flaring form in odd coloring of tan standards and decorative, lined violet falls.

Melrose M56-3 is a Border Iris, a brown and blended bicolor from Tall breeding, 18 inches, interesting but probably not typical on a first year plant.

REGION 3

Mrs. Walter Kimmick, RVP—

Bright Secret (Fass), a bright, clean orange self with orange beard. Good form and substance.

Wedding Ring (Fass), butter yellow standards, white falls bordered with yellow. Attractive.

Golden Garland (Hall), intensely golden yellow standards, gold-rimmed white falls, beautifully ruffled and pleasing form.

Chinese Lantern (Fay), a good deep yellow self with striking, tangerine beard.

Whirlaway (Voris), an outstanding soft yellow self. Fine form and substance and excellent branching.

Golden Ivory (Miess), a well-formed cream with yellow infusion at haft. Very attractive.

Sweetheart's Folly (Cassebeer), a large, ruffled, creamy bitone. Good form and placement of bloom.

Big Time (Lapham), a striking red self. Good form and substance, and tall.

Garnet Royal (Corey), a rich, smooth garnet-red with a wide flare. A red that has good garden value.

Fire Brigade (Schreiner), a smooth crimson-red self. This has size as well as height.

Watkins 55-9, this large, tall, deep red is sleek and smooth, and flaunts a stunning red beard.

Precious Cargo (Schmelzer), a frilly, pearly rose self with yellow infusion at haft. Lovely.

Charles Fowler (E. & A. Watkins), a top-flight white with excellent flaring form, heavy substance, and fine branching.

Bartow Lammert (Benson), a huge, heavily ruffled white with white beard. Excellent substance.

Emma Cook (Cook), very broad white standards with greenish tinge; one-half-inch purple band on falls. Different.

Henry Shaw (Benson), a snowy white self with white beard. Ruffled and flaring.

Inverness (Watkins), immaculate white, very broad and flaring with excellent form and branching.

Ice Cavern (Voris), a stunning blue-white with pure blue beard. Good substance and form.

Popcorn (K. Smith), perfect for those who prefer the smaller iris. White with greenish yellow radiating from beard-tip. Good proportions. Charming.

Buttrick 54-47, large, ruffled white with lemon infusion at haft. Excellent substance and form.

Buttrick 54-45, a flaring, heavily ruffled white of heavy substance and four-way branching.

Beth Corey (E. & A. Watkins), a fine medium blue, flaring, with wide parts. Top-notch blue.

Kings Choice (Schreiner), large, deep blue self with matching beard. Rich-looking.

Exotic Blue (Randolph), odd shade of lavender-blue with olive-brown beard and infusion of same color flowing onto haft. A delightfully different iris.

Sarah Fowler (E. & A. Watkins), a large, ruffled, medium blue with unusually fine substance and branching.

Galilee (Fay), a purest blue of faultless form. A grand iris.

Porreca 191, a big, ruffled violet that ranks with the best.

Helen Novak and Demetria (Hinkle), both well ruffled, with all that could be desired in form, texture, and branching. The former, a medium blue, the latter, deeper in color.

Whole Cloth (Cook), a striking amoena; white standards, violet blue falls. Medium size, smooth, trim with tightly closed standards and flaring falls. Iridescent overlay is attractive.

Pink Panoply (Cassebeer), a large, nicely formed, deep pink with extra heavy tangerine beard.

Personality Plus (K. D. Smith), a nicely ruffled pink bitone of fine form. Pink standards, lilac-pink falls.

Breathless (Schirmer), a very large, clear baby-ribbon pink. Extra large petals, nicely ruffled.

Fleeta (Fay), one of the best medium-toned pinks. Superb form and substance, tall and well branched.

Mary Ella (Rundlett), a pleasing, well-branched apricot. Good form and color.

Patience (Schortman), tall, smooth magenta self. Fine garden value.

C. G. Voris (Voris), a peach-flushed-yellow blend. Beautifully waved. Good form and substance.

Kiss Me Kate (Cook), a gem of a Border iris. Bicolor of pale cream with green overcast and neatly bordered in violet.

Benson 56-14, a white plicata with reddish-purple markings. Crisp and jaunty with fascinating swirl.

Snow Tracery (Wills), one of the best white-stitched-blue plicatas; with a minimum of stitching.

Ruth Merry (E. & A. Watkins), a stunning apricot-flushed-pink. Large, semi-flaring, and of good form.

REGION 5

Harvey Hobson—

Region 5 experienced a very good iris season with one exception. Far, far more rain than usual in April and the first part of May caused iris stems to grow very tall and in many cases rather weak. Colors were better than usual. Region 5 held its first regional meeting which was very successful and will likely lead to many other such meetings.

Of the new things I saw I was most impressed with Golden Garland. Of the somewhat older things I was even more impressed than before with Mary Randall, Rehobeth, Cathedral Bells, Violet Harmony, and Sable Night. It seems that far too little has been said of the fine qualities of June Sunlight.

It seems to me that in breeding so often the plant characteristics have been overlooked. Snow Goddess for me shows the best growth habits and has the best foliage during the season of any iris I have grown.

All the judges who saw Mrs. Hodges' Hoangho at the regional meeting were much impressed by it. It is a very large, much-ruffled yellow of fine form and stalk.

George Earhardt—

This past blooming season of the Tall Bearded iris was the best and most profuse that I've ever witnessed in my more than twenty-five years of growing iris—due in part, I think, to our unusually long, cold winter.

Some of the varieties that I thought did exceptionally well were: Big Game and Golden Garland, Snow Goddess and Swan Ballet. Techny Chimes and Garden Gold were stand-outs. While Pink Enchantment has loads of color, that is about all I can say for it. Black Taffeta and Dark Boatman both are excellent, but Deep Black didn't come up to expectations—although it has the deepest black color of any, the falls were narrow. June Meredith is my pick for best pink, with Lynn Hall a close second. Lavenesque was excellent; Violet Harmony is my pick for the best Dykes medal winner to date—it has just about everything. Dark Chocolate seems to grow on you; the more you see it the better you like it. Glittering Gold is the best gold iris for the South.

Mrs. G. L. Hodges—

The meeting in Syracuse was a delightful one. The iris gardens were attractively laid out and plants well grown. The beautiful lakes and

surrounding countryside made a perfect setting for the gardens. Here are some of the irises that impressed me most:

Hinkle's *Demetria*; T. W. Hall's #B1-46, a lovely blue; D. Hall's 54-611. Bartow Lammert (C. Benson), a beautiful frilled white. *Breathless* (C. Schirmer), an outstanding pink with frills. *Night Life* and *Pink Enchantment* by Tell Muhlestein were very outstanding. *Eleanor's Pride* (Watkins), a nice shade of blue. *Lula Margarite* (DeForest), very beautiful. *Exotic Blue* (Randolph), an attractive lavender-blue with brown beard tipped with blue. *Bali Hai* (Douglas) a large lavender pink with tangerine beard. *Wedding Ring* (Fass), this one is a beauty. Paul Cook's seedling #21655, a two-toned blue in large clump, attracted a crowd all the time, also his "*Emma Cook*" (superlative) and *Whole Cloth*. The long drift of pink seedlings under number at the Porreca garden was most intriguing. *Fleeta* (Fay), light pink with pinkish beard, nicely ruffled, and flowers on good stalk.

Mrs. C. C. Chapman—

Outstanding iris in my garden this year:

Violet Harmony (Lowry), stands out front, perfect in every way. Hail, hot weather, and driving rain did not mar its beauty; blooms remained crisp and did not fade, lasting several days.

Black Taffeta (Songer), glistening, finished black-purple self including beard. Excellent form with slightly ruffled broad hafts.

Golden Blaze (Mitsch), very large, burnished gold, heavy-textured iris with crisp, luxurious ruffled form. Very beautiful. Vigorous grower and holds up well in hot weather.

Edith Pope (Buss), magnificent huge, pure white self with no marking or other color, well-domed standards and semi-flaring falls, tall and well branched.

Phlox Pink (Linse), very large flowers of delicate palest pink shading to orchid. Excellent grower, outstanding.

Annette (Hall), a beautiful raspberry-rose self with pale coppery overtone, rich red beard. Well formed with widely flaring almost flat falls. Tailored and trim in appearance.

Cathedral Bells (Wallace), lovely formed flowers of pale pink. Petals broad with flaring falls and slightly lacy edges.

Frances Craig (Craig), an immense powder blue hybrid. Perfect flaring form, substance, and stalk. Outstanding in garden, drawing much attention.

A few other iris which also gave very good performance:

Mary Randall, *Accent*, *Black Hills*, *Broadripple*, *Crispette*, *Caroline Jane*, *Dancing Tiger*, *Dreamy*, *Fluted Copper*, *First Violet*, *June Bride*, *Majorette*, *Oriental Glory*, *Palomino*, *Party Dress*, *Raspberry Ribbon*, *Benediction*, *Bright Hour*, *Lavanesque*, *Pastella*, *Port Wine*, *Ripples*, *Sable Night*, *Top Flight*, and *Ultra Violet*.

REGION 8

Ruth Goodrick—

Iris growers in Wisconsin saw the effects of drought and late freeze on iris blooms this year. Many varieties had fewer buds, poorer branching, and shorter stems. These spoke well for themselves: Altar Light, Big Game, Blue Sapphire, Eastmont, First Flight, Fleeta, Frilly Fringes, Front Page, Galilee, Gay Paree, Majorette, Native Dancer, Praiseworthy, Ruffled Taffeta, Top Hat, Truly Yours, and Violet Harmony.

In the Minneapolis area I liked Bazaar, First Violet, Frances Kent, Frost & Flame, Gene Wild, Golden Garland, June Meredith, and Mary Randall.

Introductions from this region which were noteworthy were: Minnesota Skies (Hartkopf), a medium blue with good form and branching; Knight-hood (Reinhardt), a dark blue purple. Two seen under number have now been registered for introduction: Arthur Blodgett's 55-65, a ruffled, flaring medium blue with good stalk and many buds is to be introduced as Skipper Blue, and Mrs. Reinhardt's 55-75, a flaring soft blue, has been named Blue Caress.

When we visited the gardens in the Chicago area, these caught my eye: Butterscotch Kiss, Belated Guest, Brown Emblem, Cape Cod, Celestial Snow, Irish Linen, Muted Music, Pink Serenity, Polar Cap, Pretty Quadroon, Taholah, Thorwald, Total Eclipse.

Arthur Blodgett—

Blue Sapphire, a silvery or light gray blue which can be grown to perfection; very smooth and clean.

Convention Queen, very large light pink, lacking in style and substance.

Dress Rehearsal, a fine rich red self; should be better known.

Fleeta, the finest pink; tall, well branched, heavy substance, deep red beard, nicely flared, and a good performer.

Frilly Fringes, the finest new variety in our garden; a cream or light yellow of exceptionally heavy substance; plenty of lace on edges of standards, falls, and crests.

Galilee, short on a one-year plant, but a shade bluer than other light blues; heavy substance and fine form.

Generous, very large, smooth golden russet.

Gene Wild, large wine-rose-on-white plicata with an all-over pattern; colorful with a nice stalk; flaring and waved.

Sable Night, darker than the other so-called blacks; on the red-purple side.

Mrs. Robert Reinhardt—

Iris I liked were:

Angel Curls (Branch), a medium light blue with very broad falls and heavy substance.

Butterscotch Kiss (Plough), a beautifully laced and ruffled flower; very broad and a luscious butterscotch color.

First Flight (Plough), the first of the lacy, light violets I have seen.

The flower is large and has good form and substance.

Frilly Fringes (Bro. Charles), a very frilled cream.

Galilee (Fay), very fine blue; form and substance good.

Lavendula (Branch), a lovely flower of medium lilac-lavender; the very broad falls are fluted and edged with lace; standards also laced, but a lighter shade of lavender.

Purple Heart (Varner), a ruffled red-violet, lovely color, large flower.

Sweet Harmony (Branch), a light pink edged with chartreuse.

The most beautiful garden I visited this year was the garden of Dr. Branch in Piper City, Illinois.

Mrs. Donald Gregg—

Some of the iris I saw growing especially well this year were: Angel Curls, Blue Throat, Butterscotch Kiss, Galilee, Green Mohr, Just Music, Lavendula—number one on my list—Night Patrol, Purple Heart, Snow Goddess, Starshine, Steel Haven, Sweet Harmony, Violet Haven.

Edna and Nadine Yunker—

We liked these introductions of Dr. Branch: Angel Curls, Dark Stranger, Dream Dust, Lavendula, Just Music, Magic Mood, Piety.

Other varieties which performed well were: Blue Skirts (Reinhardt), Celestial Snow (Bros. Charles), Eastmont (Plough), Oyster Pearl (Reinhardt), Polar Cap (Stevens), Pink Serenity (Bro. Charles), Purple Heart (Varner), Queen's Lace (Tell).

Stanley Larson—

Here at Duluth we had a very poor iris season. The Chinese, I understand, have a custom of giving to each year the name of some animal. If we were to use a similar system we would give 1958 the title of "Year of the Runt." Such bloom as did show was, for the most part, on very short stems. This condition was so general throughout the entire area that we decided not to have a show. This has occurred only twice in the history of our shows.

REGION 11

MRS. E. J. HENKE, RVP

No meeting was held in Region 11 this year. The iris centers are so widely scattered it is impossible for members to get together.

Mrs. A. H. Munson and Mrs. Albert McConnell from Laramie, Wyoming represented our Region at the AIS Convention in New York. Those unable to go East went West to Region 13's meeting at Silverton, Oregon. Here the Schreiner, Cooley, De Forest, Kleinsorge, Tompkins, and Beattie gardens were visited. We had a grand preview of the iris of the future along with those already introduced.

All areas of our Region gave reports of some "so-called winter damage" in spite of a more or less mild winter.

A noticeable change in the type of iris grown in Region 11 has taken place. More and more gardens are growing the newer varieties along with the better of the older. We like to think the Iris Shows are responsible.



A group of members from the Inland Empire Iris Society, Spokane, Wash., visit Mr. and Mrs. Tom Brown's Sunny Hill Gardens in Walla Walla. Standing by a planting of Opal Brown's Poets Dream, are (l to r) Mrs. E. Reading Swick, Mrs. C. E. Troope, Mrs. Charles Dalugge, Opal Brown (of Firenze fame), Mrs. Eric Bax van Werald, and Mrs. J. E. Hutsinpillar, President of the Inland Empire Iris Society.

photo by erna bert nelson, spokane

REGION 13

KATHERINE FARLEY, Ore.

Frost visited the Medford, Oregon area twice during our iris season of 1958, but in spite of it we had a fair blooming season. In fact, so many performed so nicely that we cannot begin to mention all of them.

The white ones that stood out in the garden were: Swan Ballet, Cascadian, Cliffs of Dover, Dreamy, and Frost and Flame. The latter is one you can see clear across your garden with its bright beard and height.

The blue iris that were outstanding: Big Game, Galilee, Blue Sapphire, Azure Lake, Celestia, South Pacific, Rehobeth, and the old faithful Jane Phillips, which is one that never fails to perform perfectly in all kinds of weather.

The most beautiful displays among pink varieties here this year were put on by Lynn Hall, Fleeta, Pink Enchantment, Pink Fulfillment, June Meredith, May Hall, Vanity Fair, and Cathedral Bells.

Among the dark blue beauties we found the most satisfactory performances were turned in by Sable Night, Deep Black, Black Taffeta, Total Eclipse, and King's Choice, which we feel is a "must" in every garden. Purple Sage is another that is beautiful in the garden.

Yellow varieties which were especially choice here this year were: Gold Cup, Chinese Lantern, Solid Gold, Techny Chimes, Coronation Gold, Golden Garland, Char-Maize, and Zantha.

There are so many lovely browns and blends that selecting the top ones is a job. Argus Pheasant is always a beauty here. Thotmes III, Beechleaf, Fluted Copper, and Inca Chief were exceptional, although I wish the latter were a bit taller.

Of all the plicatas, Taholah is the loveliest to me, and I'll add Caroline Jane as a close second. Majorette is such a lovely color pattern, and Raspberry Ribbon and Port Wine always have a place in the garden.

During the month of August, with temperatures in the nineties, we have had Gay Paree, Fiestaway (and many others) blooming in the garden and never fading.

FIRST OF THE SEASON FROM SOUTHERN CALIFORNIA

CLARKE COSGROVE

With almost a full week of ninety degree temperatures early in February followed by cooler weather and three times the normal rainfall for the year, the 1958 iris season in Southern California promised to be unusually unusual, and the promise was kept. The Tall Bearded bloomed over an extended season, and the non-bearded were thrown completely off schedule and forgot whether they were to introduce or extend the season.

Colors were brighter than usual among the Tall Bearded and the flowers generally large and characteristic in form, but too often the bloom stalks were short, particularly among the browns, reds, and blacks, which are difficult to heighten in this area.

The season officially opened with the Descanso Garden display on April 19. In addition to the large plantings of iris in this unique Los Angeles County Park, cut specimens and attractive commercial displays were available for public viewing. The project is under the sponsorship of the Southern California Iris Society with Tom Wilkes as chairman.

A second large public planting reached peak bloom a few weeks later at the Los Angeles County and California State Arboretum. This project is also sponsored by SCIS, and with the aid of members to answer questions and especially prepared educational material, along with the Descanso plantings, has done much to increase interest in the newer Tall Bearded varieties.

Regional activities took the form of a two-day trek on April 26 and 27. The Saturday trek visited five gardens in the San Gabriel Valley. They included the Iris Gulch of the Hammond Nashes, Norwood Gardens of Bill and Joan Pegram, the garden of Grace Kallam, Hopson's Hobby Garden of Russ and Jennie Hopson, and the Clarke Cosgrove

garden. Each offered a wide variety of bloom in different settings. Iris Gulch had the iris growing in huge clumps with expanses of dry gulch sand between, but backed with many interesting semi-arid plants. The Kallam and Cosgrove gardens display the iris as part of perennial borders, while the Norwood and Hopson gardens are commercial plantings. This day, seedlings in the Hopson garden from the Oncobred, red and pink lines, demanded closer scrutiny. Good reds for southern climes are developing here.

The spring meeting of Region 15 was held that evening as a dinner meeting where the members were entertained by LaVerne Conrad as "the visitor interested in seeing the 'flags'" and Peg Dabagh as the "iris grower" in a dramatization of Peg's recent article on garden manners. "Iris—Past, Present, and Future" was discussed, with Mrs. Dabagh stressing the qualities of iris of the past that have been overlooked in the rush for new colors, larger size, and variations in form. "Iris—Present" was illustrated with colored slides, principally from W. B. Schortman and Jim Gibson, of new introductions and seedlings. Clarke Cosgrove attempted to forecast what could be expected and how it would come about for "Iris—Future."

The Sunday trek was to the San Fernando Valley where the lovely small garden of Mrs. Elsie Heimer was followed by the impressive commercial plantings of the Lyon Iris Garden of Dave and Mildred Lyon and the Sign of the Iris Garden of Mrs. Laura Burbridge. New varieties and seedlings were abundant in these gardens.

The Southern California Iris Society substituted a trek to the garden of AIS President Marion Walker's garden in Ventura for their annual iris show this year. The Walker garden featured all the award-winning iris of the past few years and offered judges an unparalleled opportunity for comparison of varieties and discussion subjects during the potluck picnic luncheon. This garden is the home of the recent Walker introductions, Channel Islands and Golden Anniversary, which reached perfection bloom as selected seedlings during the 1956 annual meeting of AIS in Southern California. President Walker's well-planned hybridizing program with the Tall Bearded had a number of promising seedlings that demanded attention.

Varietal comments by color classification have been prepared by several AIS members in Southern California.

A Second Look at the Blacks

MRS. GEORGE M. ROACH, SR.

In general, the increased moisture, together with cool nights and hot noon days, seemed to have caused lush foliage growth. As the bloom stalks appeared, the sheaths in many cases were so large and tough that the blossoms were unable to emerge without human assistance. Good branching, for the most part, was conspicuous by its absence,

with stem growth so inhibited that the blossoms appeared wherever they happened to be. With this in mind, possibly criticism should not be too severe of the "Tall Blacks."

When freshly opened Tabu is close to true black; the falls flare, and the form and texture are adequate. There is great promise for tomorrow, but what a disappointment. The overall size of the flower has increased, but in so doing, the falls now appear strappy. The standards are held open. Instead of the rich deep tones, it is just another dark purple—whose form, substance, texture, and keeping qualities leave much to be desired. It did grow taller than Black Forest, Night Spot, or Velvet Dusk; but twenty-seven inches is still too short, for such iris were lost in a mass planting. Top Hat, though not as dark, has better size and form, but it is really short and does not seem to be a good doer in this area.

The quirk in the weather seemed to be just to Black Taffeta's liking. In the valley it reached a height of twenty-four inches, and visitors from Region Fourteen told of its growing even taller there. In spite of its height, this is an iris that will be with us for a long time. The only darker iris in commerce today is Real Ebony, a true *Oncocyclus* species, whose culture and hardiness make it unacceptable for the most part. Black Taffeta has broad petals which nicely flare and ruffle with a glistening finish. Its appearance on opening compares favorably with a four-day-old bloom.

Sable Night was extra late in blooming this year. Judging from last year's performance on a two-year clump, it is a dark velvety red with a black overlay. Form of the flower was good, but its stem was short and branching, too close. Possibly in other areas where it reaches its registered height of thirty-eight inches this is improved; but as it grows in Region 15, it is not representative of Dykes material. Congo, on the other hand, is a nice surprise. It is a large dark iris with a reddish sheen on top of a black undertone. It's thirty-six inches high, and well branched. Unfortunately it has a tendency to bloom itself out.

A product of Carl Milliken is Raven Wing. The falls flare smartly with no evidence of pinch or tuck. A slight ruffling produces a delightful dip in the center margin. Its standards are tightly closed and at no time can you see its "innerds." Its texture is that of velvet and the substance is adequate. Its branching and keeping qualities are excellent. While the flower itself is not exceptionally large, it is in proportion to its height of thirty-two inches.

Deep Black has nice color saturation. There is about the beard a triangular pattern; while it can't be described as white veining, the color seems to be less intense. Twenty-four inches was its best height. Total Eclipse, a rich dark violet with a frost-tipped beard could have had wider falls, and it is not as dark as the name would imply. As it grows here, it is not in the same class as its stablemate, Black Hills.

Inky Bluebeard is just that! Height, form, substance are all in the minus column. Storm Warning has considerable color saturation, but its

hafts are quite narrow, and the plant's habits are poor, for rarely does it reach a height greater than twenty-four inches.

Bellamohr was our greatest disappointment. It is not a "Grown-up Sable." In fact, when it was placed alongside Elmohr it was difficult to see any difference, and no one has ever considered Elmohr a near black. Dark Boatman, though it has been in the garden for two years, has yet to bloom. La Negra Flor, Texas Way, Raven Country, Ivory Black, and Kings Choice were not in bloom.

After looking them all over, in its color class Black Hills has not been topped. Its form is perfect, its branching excellent; it performs well in all gardens and is never temperamental. Its heavy stalk needs no staking. This dark beauty has garden value and holds its head high with the best of them. We are still working toward a truly black Tall Bearded iris.

Whites—Cool or Warm

RALPH CONRAD

White Peacock again appeared to this writer as the best white during the Southern California iris garden visitations this past season. Good-sized, well-established clumps with many bloom stalks up and flowers well distributed in their perfect rounded form were seen everywhere. It's pretty hard to beat as an all-around showy white in this area. Queen's Lace is a dandy white for those who like heavy lacing. It was seen blooming on rather low stalk, but was attracting plenty of attention. Snow Goddess, new to me, showed excellent branching and form—the faint green lines on the falls add to the attractiveness of the flower. Alba Royale, a favorite here, is a very clean flower; the branching is excellent, and quite showy with as many as four perfect flowers out at one time.

Wedding Bouquet was well liked, its lemon beard making the whole effect a refreshing one.

Swan Ballet is a white to beat! It was seen again with three perfect blossoms on one stalk. A dainty lass, indeed! Others liked were the very tall White Cinderella, Cascadian, Senorita Ilse, and the older White Ruffles. Snow Flurry is found in most gardens, and while it is used extensively in breeding and may be grown by some for that purpose mostly, it stands up with the best. There was one garden with a tremendous clump of old Easter Morn, long forgotten by many, but blooming its head off and making quite a show. And there is plenty of Purissima being grown—it's one of the first to bloom and still a good white!

Brighten up with Yellow

MRS. MARGUERITE DEMUTH

The brightest color in the garden comes from the yellow irises which are found in many fine varieties. Of the deeper-toned ones, Glittering Gold is a fine ruffled self. Classic Yellow, with slightly opened standards,

has a deeper-colored beard to set it off. Both have broad, round petals and flaring form. Gold Cup appears the deepest, most brilliant in color, with Solid Gold almost as bright across the garden. Not so new but still fine iris are Gold Sovereign, a rich orange-yellow, and Ola Kala, a little lighter in color and flaring in form. Both of these last two have smaller flowers than those above.

Starfire is a beautifully formed medium yellow with a lighter area in the center of the falls. It has good substance, is slightly ruffled, and very fragrant.

Of the lighter shades, Char-Maize is very wide and ruffled, withstands summer heat well, and as the name implies is on the chartreuse side. Techny Chimes, also ruffled, is light yellow with an almost white area in the falls around the orange beard that shows its pink breeding. It is a profuse bloomer. Montecito is a beautiful early bloomer. It's tall, with large flowers with a white area spreading out in the falls. Golden Ruffles and Yellow Organdy are older but still much-loved pale, ruffled yellows.

Glittering Gold, Gold Cup, and Golden Ruffles are reported to be slightly tender in areas having severe winters.

Blues All the Day Long

CLARKE COSGROVE

With most hybridizers still seeking true blues in all shades, it would seem that this particular color classification is saturated with excellent iris, and the choice between varieties is difficult. Even though blues are among the better performers in this area, certain varieties are distinctive enough in form, color, or performance to make impressions.

Probably the bluest of the lot is South Pacific, which is on the pale end of the color band. It does not bloom as tall as many varieties, but is generous of bloom, and the finely formed flowers are placed well to make an attractive clump. Butterfly Blue is also on the pale side, growing slightly taller than South Pacific. Its flowers are longer but in good proportion.

High Heavens is tall and extremely floriferous. The lavender-blue blossoms are well proportioned and the plant quickly establishes itself as a garden clump. Too many of the new varieties in all color classes have too few buds per stalk. This is true of Eleanor's Pride, but the huge, ruffled, flaring flowers last well enough to equal two flowers of a lesser variety. It and Sierra Skies were the outstanding blues viewed this season.

Beacon Hills has exceptionally good color and neat, rounded flowers, but this year its beauty barely peeked above the foliage, and a cut stalk was the only way to admire it.

Ruffled Starlight and Mission Starlight are distinctive blues in a class in which it is difficult to differentiate. Ruffled Starlight has standards of a deeper tone than the falls, and they mount in a conical

swirl. Mission Starlight has a surface finish to the standards and falls that is pleasingly distinctive.

Robust and commanding in appearance, Lady Ilse and Mary McClelland stand out in the garden as ladies of bearing. Their heads are held high on forty-eight-inch stalks; they'll continue to hold them so for many years to come as true quality is here.

Blue Flight was perky on a one-year plant as well as Major Eff with its medium blue uniform. Newcomers to the blue class have stiff competition in Regina Maria, Melissa, and Harbor Blue, but each year there are new contenders of worth.

REGION 18

Mrs. Walter H. Buxton, RVP—

Altar Light, aptly named with the color of a flickering candle in a church chancel.

Angel Curls, if earthly angels wear curls, they will shop around for this one.

Ballerina, still the "dancing princess" of the light pinks.

Big Game, a giant blue that calls to you.

Black Castle, lovely deep blue-black with some ruffling.

Black Diamond, short, almost black. Good substance and growing habits.

Black Taffeta, the really outstanding one in the color class.

Blue Sapphire really is worthy of the Dykes Medal. Excellent color, strong stem, good grower, perfect bloomer. A winner!

Bronze Bell, handsome brown. Good branching, nice flower, stands all weather as it has wonderful substance.

Chinese Lantern, beautifully domed flower of deep yellow. Good branching and wonderful substance. Flowers are of lasting quality.

Waxing Moon, lighter in color than Chinese Lantern, just beautiful in a clump. A true eye catcher!

Color Carnival may not be exactly what you may call "pretty," but is one that fascinates all who see it.

First Violet, still bowing to Violet Harmony. The latter is a much better increaser here, but it is a real task to decide which is the better.

Fluted Copper is fluted and very bright in color. Strong plant supporting strong stems of well-placed bloom buds.

Foxfire still steals the show in the deep orange-yellow class. Vigorous grower.

Front Page has been rather on the timid side here. Outstanding color.

Fleeta, strong pink color, but must be petted a lot to keep her in a good humor.

Frost and Flame, rather slow to take hold and grow. A very distinctive flower as it has such a vivid beard. Flower not large, but has good substance. Foliage rather to the narrow type.

Gene Wild, nice in other folks' garden, but not happy here.

Halolight, a most vigorous grower. Very floriferous.

Golden Garland, the dream of the yellow varieties. This is one of the most outstanding iris of recent introductions.

Gracious Helen, a new Wallace iris of distinction. As gracious as her namesake.

Joan Crawford, lovely shade of blue that keeps calling to you. Good bloomer, excellent substance, sturdy grower.

June Meredith, a delightful shade of pink, but gets temperamental in this area. Slow increaser for us.

Lady Ilse, another "must" in this color class.

Lavanesque, better grower than Pink Plume. This shade of orchid is very desirable in every garden.

Lynn Hall, excellent pink that really holds its color. Nice branching with well-placed buds. Reported to do well throughout our region.

Melodrama, one of the breath-takers. Mr. Paul Cook has really developed some very different iris.

Allegiance, a large dark blue on tall well-branched stems.

Whole Cloth was the most distinctive iris I saw this year.

Wonderment, very pleasing, but think Emma Cook much better.

Maytime, still the lovely amoena, popular even though it has been out for several years.

Her Ladyship and Muted Music are outstanding introductions of our own Dorothy Palmer. The latter has a softer blue color tone. Her Ladyship is indeed queenly in stature and weather resistance. Muted Music, truly a self from tip to toe.

Pierre Menard, no iris collection would be complete without this one. Strong plant, with perfect branching. Many stalks will have three or more blooms open at one time. A real show winner.

Salem Lass, an early introduction of Marvin Olson, region 18. Similar in many respects to Pretty Pansy. A clump in bloom is very attractive.

Sable Night, the deep red-black everyone clamors for. Flowers large, with good sheen.

Snow Goddess, an excellent white with an overplus of substance. A real goddess wherever seen as it is a vigorous grower.

Vagabond Lady, good deep rose color that grows well.

Henry Shaw and Jean Sibelius, Cliff Benson's introductions for 1959, were seen at the Syracuse Convention. Henry Shaw, a lovely ruffled white; Jean Sibelius is a deep medium blue with a live sparkle.

Poet's Dream and Firenze, new introductions of the Tom Browns, put on a beautiful show in the Toledo area. Both are "musts" for all who saw them. Poet's Dream is a grayish white with lots of ruffling, Firenze, a deep purplish color with plenty of highlight to accent it.

Irish Linen, lovely white from Orville Fay. Medium height, well branched, excellent substance.

Patrician, nice white with yellow center that captured the Franklin Cook Memorial Trophy at convention this year.

Olympic Torch and Amethyst Flame were very outstanding Schreiner introductions this year.

Spring Festival, a 1958 Hall-Cooley introduction, is a lovely ruffled pink blend that is most attractive.

The Citadel, truly a milk white.

Queen's Lace, just what the names implies.

Regina Maria still holds court in the light blue ballet of dancers. Mrs. Hinkle has something to be proud of when Demetria, New Love, Curled Cloud, and Helen Novak get together and have a show of bloom.

Caribou Trail, very lovely blend of tan and lavender with a yellow flush.

Riveria, strong grower. Excellent. An all-around good performer. Light yellow.

La Negra Flor (meaning black flower), tall reddish black, large flaring, Very popular in the symposium vote in the this region.

Raven Country, beautiful flower, probably the blackest of all the dark ones. Too bad it is not as strong a grower as one desires. Unattractive foliage here.

First Curtain, ruffled luscious pink color, slightly flaring falls, very laced. Grows short on first-year plant. Substance unusually good.

Total Eclipse, good substance, excellent increaser, flowers well shaped but small.

Snow Ballet, medium blue-white with good substance, strong stems, and excellent branching.

Garnet Royal, smooth red, one of the best observed in the color class.

REGION 19

Blues

Joe Gatty—

Eleanor's Pride (Watkins), a very impressive, wide and semi-flaring powder blue; prolific, well branched, and sturdy of growth. This recent blue was fine both here and at New York. Indeed a most welcome addition to the ever-popular blue class.

Jean Sibelius (Benson), a very fine rich blue-violet of good form and substance.

Boundbrook (Smith), the lightest of blues, but it does not need any additional color, for it is perfection in iris form. The tightly held standards are complemented by the wide and lightly ruffled flaring falls; the branching, ideal, holding the finely poised blossom with great pride. A lovely quiet iris with great appeal.

Granny Sherman (Bellmer), a Region 19 favorite of light blue which, season after season, abundantly produces its wide, ruffled blossoms of good form, not the tallest of blues but certainly a most dependable variety, and an exceedingly fine parent for this color.

Arabi Pasha (Anley), a rich, deep blue self, which though tailored in form, is no less lovely than its more ruffled sisters. The color "blue" we need more of in the iris garden.

Blue Sapphire (Schreiner), well named, for it has great clarity of color for a light blue. A prolific and dependable iris liked by many in this section, and disliked by others because of its indifferent flower form.

Ken (Rundlett), a deep hyacinth-blue which produces a quantity of medium-sized, ruffled, and flaring flowers on well-branched stems. Very nice.

Yellows

Brassie (Warburton), a Standard Dwarf which is bold, brazen, and eye-catching due to its intense color. Once seen—and frankly I dare one to miss it—it must be acquired for the garden. A deep yellow of rounded form, good substance, growth and garden value.

Wedding Ring (Fass), a fine and well-branched deep yellow and white iris, akin in pattern to that of Leading Lady, though deeper in color and with more contrast as to design. Lovely.

Baria (Cook), a Standard Dwarf of light yellow and perfect form. One should not only have this but Fairy Flax, Green Spot, and Brite as well. Each is a worthwhile garden subject in itself.

Truly Yours (Fay), a beautiful late iris, but unfortunately an erratic performer.

Blacks

Black Baby (Sass), a Miniature Dwarf of intense violet-black. Very good form and prolific.

Black Taffeta (Songer), a very rich black with a definite sheen over the entire flower. Good form, not tall, but still lovely. My favorite of the blacks.

Plicatas

Dale Dennis (Dennis), a Standard Dwarf in a new color pattern. A dainty and delightful plicata of pure white edged in the proper shade of violet to make the flower even lovelier. Flaring form, good substance, and a neat and sturdy plant. Nothing else like it, indeed a charming "first."

Pinks

Pink Enchantment (Muhlestein), the deepest of pinks and a definite advance in this color. Not tall and should be placed to the front of the iris border. One that is both for the iris gardener and breeder.

Sdlg. #232 (Bennett Jones), a new Border iris to be introduced next season. Indeed, this is a charmer of a bitone with tightly held and open standards of pink, and wide flaring unmarked falls of rose-violet. Very different and very nice.

Breathless (Schirmer-C.), emphasis on form. A light pink of good size and branching with nicely held, ruffled standards and wide, flaring falls.

Whites

Cascadian (Linse), a thrilling white which some may say is not a balanced iris. The falls are wide and long, but the overall picture is a fine one, and it is certainly one of our best whites.

Two Snows (Scott), a starched, ruffled white which produces an abundance of flowers. Can take heat, rain, and whatever the weather throws at it and still come up looking good.

Dr. Bob (Smith), the whitest white I have yet seen. Form is ruffled and very flaring.

Blends

Caribou Trail (Plough), a bright brown blend made doubly interesting by its heavy edging of lace.

Inca Chief (Mitch), browns are difficult in this area but this one performs season after season. A very good iris and well liked.

Reds

Ebony Echo (Tompkins), another where performance is the keyword. It always turns in a good one and is, indeed, a fine standard as a red iris. Form is fine.

Violets

Merry Lynn (Till, Jr.), a good addition to an iris color class that can use new additions. A smooth milklike, lobelia-violet of flaring form. Perhaps the finest new iris I saw this past season.

REGION 19 MEETING

ELIZABETH A. WOOD

A regional meeting and garden tour were organized by the Regional Vice-president, Mrs. Dorothy Dennis. About fifteen AIS members gathered in the garden of David Johnson of Dunellen on May 24 for a regional business meeting and a buffet luncheon provided by Mr. Johnson. The group agreed to hold one excursion meeting a year during iris season and two other meetings, one in October or November and the other in February or March.

Mr. Johnson's garden was enjoyed for more than two hours by the members. Surrounded by high shrubs, it was so protected that it was nearly in peak bloom while other New Jersey gardens were still mostly in bud. In addition to well-grown beds of modern named irises, Mr. Johnson was growing a large number of his own seedlings. Two of these attracted special attention: 57-96, a rich, deep brown combining ruffling with heavy substance, and 57-93, a ruffled golden yellow variegata with golden yellow beard but with falls startlingly streaked with dark blood-red. The clean streaks stopped near the border and also parted to leave a yellow stripe down the center of each fall.

Three other gardens were visited, all in the region lying between Plainfield and New Brunswick. The Hoegberg garden, surrounded by level fields, was full of fat buds and a few good blooms. Fred Megson's,

the only non-commercial garden on the tour, was of special interest because of a number of rarer species which he was using in hybridizing.

The Hustler garden was the last visited, and the group found Mr. and Mrs. Hustler busy getting their labels in place with the aid of planting maps and notebooks. Their garden was just coming into bloom and we wished we might return a week later.

In spite of the sparse bloom, everyone agreed that it had been a good day and the enthusiasm for more Region 19 meetings was high.

REGION 20

J. O. Riley, Denver—

The approach of the blooming season in Denver included cool, wet weather, and it seemed possible that another late and perhaps long blooming season would take place as it did in 1957. The richly colored blooms of such things as Vulcanus, Sari, Fides, Andromache, and Teucros were giving us an early taste of iris color—and then came the heat. The result was a season of bloom that was altogether too short; quality was in many cases impaired, for bloom tended to bunch, even on the best-branched varieties.

In my own garden Ruffled Organdy, Char-Maize, and Pierre Menard were unequalled. 'Lina Beth, Rio Arriba, Wide Awake, and Phoebus Apollo gave splendid performances. Memphis Lass lived up to the advance notices of last season, giving almost perfect bloom on a one-year plant. Baby's Bonnet, planted in partial shade, was crisply beautiful.

In the garden of Dr. Durrance, Mrs. Hinkle's Symphony and Schortman's Sierra Skies were waging a tremendous battle for supremacy. Regina Maria was also very good, and the older Mary McClellan was showing beautifully. Lois Craig was new to this viewer, and I was impressed with the height of stalk as well as the quality and shape of the bloom. Ambush, by way of contrast, bloomed very short and close to the ground. Orange Banner, with its brilliant coloring, was a focal point of attention. Buddy Mitchell, hoogiana derivative, was beautiful in its different shape and coloring. Curl'd Cloud was very good until it met a Colorado gale. The older Anytime, while not quite so beautiful in shape, withstood the wind much better. Dr. Durrance had three very interesting seedlings: Firebird x Progenitor, yellow and blue; Melissa x Progenitor, white and blue; and Sea Lark x Progenitor, almost white and purple.

In the O. T. Baker Garden were good specimens of Plough's Butter-scotch Kiss and Caribou Trail. Baby's Bonnet and Wayward Wind showed to good advantage. A new Baker seedling, tentatively called "Country Style" was of interest, and I look forward to seeing it again next year.

In Colorado Springs, Dr. Brown had fine specimens of Shiloh, Cutie Pie, Blue Flight, Dotted Swiss, Melodrama, and Ruffled Apache. Dr. Brown has a group of fine black seedlings, which he is watching closely.



"A good time was had by all. . . ." Part of the crowd that attended the traditional annual coffee and doughnut breakfast at BAKER'S ACRE, Denver, Colo., the home of Mr. and Mrs. O. T. Baker, RVP, Region 20. This annual event is the starting point for the garden treks.

These same seedlings aroused great interest on the occasion of our visit to his garden in 1957. At that time it seemed impossible to reduce the large group to a mere dozen. Dotted Swiss impressed us as one of the cleanest of the new plicatas. Dotted Swiss and Memphis Lass planted side by side would be an almost unbeatable combination. Ruffled Apache was better than I have ever seen it before. Cutie Pie, described as wisteria-violet with a yellow influence in the throat, gives the impression of a bluish purple and yellow combination, which, in this instance, is very striking. For those who are fond of neglectas, Shiloh is strongly recommended. Melodrama, in a large clump, was particularly striking. Even in the clump, the blooms did not lose their individuality as is so frequently the case.

Over in the Dr. Loomis Garden, we found an exceptionally fine specimen of Mrs. Hamblen's Valimar. While perhaps not as large as some, this is one of the better apricots. Glittering Amber again lived up to its reputation, and the older Ruffled Snow obviously was in no way frightened by the fast company it was keeping.

Always of interest at Dr. Loomis' are the seedlings which have been given names of one sort or another. These are things which apparently will not be introduced—but it is always a pleasure to see the brilliant purple of Elmohr Sable, the rich yellow-brown tones of Wolf Mohr, the near dead black of Chimney Sweep, and the attractively patterned Speckled Mohr.

At the Long Garden in Boulder were a number of items already mentioned; however, Melodrama and Glittering Amber are deserving of repeated mention. Craig's fancy plicata, Gene Wild, was showing won-

derful richness of color. Kalifa Gulnare was strangely attractive in color tones which seem more than difficult to describe. Mrs. Hamblen's Mission Starlite was very nice, although I much prefer her Ruffled Starlite. Mr. Long also had a fine specimen of Ralph Green's Gaymohr. This has been described as a light blue self, but it seemed to me there was something more in the color.

As I said before, heat brought the bloom on fast, and continued heat hurried the season through in what seemed to be a very short period. I felt as though I had been cheated, somehow, out of part of the season, although my group of iris slides seems to be about the same as that of other years.

Lys Housley, Denver—

There has been much complaint in robins that the newer varieties of iris are not tough enough for landscape use. It seems to me that it is too soon to judge them on this point. An iris has to "shake down" on the market for a few years before one can tell how it is going to be for landscaping. But the following iris ought still to be considered fairly recent or "modern" and have proved to be marvelous landscape subjects for me:

Chivalry, it took me a while to learn to appreciate blues, but after it soaked into my stubborn head that you can't beat blue for landscaping—it gives a lovely, sweeping, COOL effect on a hot day, as it reflects the blue sky—I began to collect blues. Chivalry is still tops for toughness, increasing, and good landscaping effect, in addition to the other qualities that won it the Dykes Medal. Sea Lark is another good blue for landscaping.

Cliffs of Dover, while I do not have this, myself, I class white as second only to blue for landscape purposes, and in other people's gardens, Cliffs of Dover has appeared extremely vigorous.

New Snow, I don't have this one either; perhaps when I get that acre, I'll have to find room for it even if it isn't very new. Have seen it in the mass at Long's and saw where it got its name. If you want a snow-field in June, put several clumps of this in a strategic location.

Pinnacle, for me, this great yellow amoena has been a regular war-horse—increasing, putting out sturdy bloom, never having a sign of disease, holding up under having rhizomes removed around the edge for all the people who want it. And if in addition to landscaping, you want to do a little hybridizing, Pinnacle holds great potentialities.

Elmohr, this all-time favorite will reward you with huge clumps filled with masses of bloom, *if* you treat it right. Be sure that it has plenty of drainage—remember its Onco blood—and put it in a location where it is not too sheltered if you do not want too-early-formed buds to be blasted by late freezes.

Lady Mohr, the "louder" colors need to be set off by more subtle ones, such as those in Lady Mohr, which has also increased and bloomed

riotously for me. It likes the same kind of situation as Elmohr, and the two make good landscape companions.

Re the blue amoenas, the blue and white amoena pattern is excellent for landscaping, but the old stand-by Wabash is a little small for use with big, towering varieties, unless you put it in front of them. Gaylord and Bright Hour are still in the "testing" stage in my garden, but I am putting my money on Gaylord as a potentially good landscaper—with its larger bloom—and on Bright Hour as a potential parent for interesting amoenas.

Mary Randall, in landscaping, Mary Randall should be used as an accent, not in the mass. It is of a strong, carrying color, as is also Brigadoon.

Re Flamingo Pinks, there are a number of these on the market that should be good landscaping subjects—"You pays your money and takes your choice." Many of these are pale enough that they can be used as background and blenders with stronger colors.

Pink Fulfillment and Pink Enchantment, these are still too new and precious to judge as landscape subjects, but for luscious pink they are hard to beat. If you are looking for something that is less expensive but very pink, try Pink Confection and Seventh Heaven. These are not background pinks but belong in the foreground.

Some Unusual New Varieties Seen Here and There

Lassen Peak, one of the most striking things seen this season, bred from *I. susiana*. Huge and effective.

Orchid Queen, if you don't like all-over veining, you won't like this. But if you like something that is both exotic and regal, you will be crazy about this. It was surprising to learn that there is no *Oncocyclus* in the ancestry. With pale cream-colored standards and rosy orchid veining all over the falls, from a distance it has the appearance of an orchid-pink amoena.

Wayward Wind is for those who are looking for something a little different in the tannish tones. Wayward Wind always calls to mind a comparison with something edible, such as smoky honey. Very smooth.

Phoebus Apollo, while I have not seen this anywhere where it had a very large bloom, its form and color are truly lovely.

Cutie Pie, rather large for a "Cutie Pie," unless the namer was thinking of a chorus girl! Something makes me think that this one has some qualities that might be worth trying to breed into *plicatas*. Luscious.

Happy Meeting is the best or one of the best of the new *plicatas*. If it will just display good qualities of vigor and increase, it is destined for popularity.

Baby's Bonnet is apparently a good increaser and vigorous and still looks very smooth and different from anything else you have ever seen.

Volunteer Fireman, this, too, is "really" different and a glowing color. Black Joppa, unusual, exotic, makes you want it to see it.

Mrs. Ted Weber—

Our iris season was very short; mine popped into bloom and out very quickly—gone all too soon.

Had many beautiful blues and the ones to bloom the earliest were the nicest. Jane Phillips and Frances Craig, both in clumps, were really something among the darker blues. Big Game and Texas Way made a nice showing; they both stood nicely in spite of the hot sun.

June Sunlight, Zantha, Solid Gold, and Gold Sovereign were very colorful; however, a clump of Jasmine, and one of Pale Primrose, drew more praise. Bright Lights and Armour Bright, among the “oldies,” stood out.

On account of the hot winds, my pinks, even though protected from the hot sun, were not at their best. Happy Birthday and Palomino, usually very nice, bloomed short and bunchy. I was disappointed in Enchantress—it was so washed out. Pink Clover was nice; Native Dancer, good—its shape as usual was very lovely, stood the sun fine—it didn't get tall enough for the wind to whip it around. Party Dress and Fantasy bloomed well. Some of my older pinks, like Rosabella and Rose Garland, drew a lot of favorable praise from visitors.

Among the whites: Snow Goddess, Tranquility, New Snow, Spanish Peaks, Mrs. Sydney Mitchell, Senorita Ilsa, Cliffs of Dover, and White Sprite were tops with me; however some of the older ones like Lady Boscawen, Jake, and White City seemed to get a lot of praise.

Black Michael, Storm Warning, Tabu, and Top Hat were the nicest of my blacks—Sable Night didn't bother to bloom for me and Black Diamond was too short.

My plicatas were nice this year, among them a pretty one called Love Lace, also Love Affair. I was intrigued with a blue and white called Advance Guard; it bloomed for the first time this year, after sitting in my garden for three years—it was worth waiting for.

Lady Albright made a nice splash of color; so did Raspberry Ribbon and Minnie Colquitt.

Miogem, Bronze Brocade, Three Oaks, and Grand Canyon always add a touch of color and can be depended on to bloom each year—they are sturdy growers.

Maytime and Pagan Princess are always like a beautiful dream—Maytime so delicately beautiful, and Pagan Princess so colorful and gay.

Starshine is very stately and blooms every year; this year Desert Song and Caroline Burr were the first to bloom, along with Capitola.

I had many varieties which didn't bloom this year—so taking everything into consideration, it wasn't my best iris season.

John M. Gilland, La Junta, Colo.—

Argus Pheasant, a nice brown that does well in this area.

Castle Rock, a favorite in the plicata class.

Copper Medallion, as bright as a new penny.

Garnet Glow, nice flowers, and a good increaser.

Happy Birthday, a ruffled pink, well liked by all.
Lady Albright, a coppery blend that does well.
Mary Randall, the judges didn't go wrong when they awarded this one
the Dykes.
Melody Lane, a nice golden apricot.
Pierre Menard, this one always puts on a good show.
Raspberry Ribbon, another plicata that is outstanding.
Top Hat grows tall and is real dark.
Truly Yours, this one is real nice, but does not increase very fast.

We had lots of moisture, several hail storms, small size, and a little beetle about one-eighth-inch long that had a preference for the lighter colored flowers—no doubt caused by excessive dampness. Altogether a very poor iris season.

Bob Woerner, Denver Botanic Gardens—

Vanity Fair, good ruffled pink, large flowers.
Mary Randall, nice color, excellent form, several flowers in bloom on the stem at once.
Truly Yours, excellent quality, good vigor.
Blue Sapphire, pure pale blue, ruffled, nice.
Lady Dozier, excellent, nice color.
Victorian Veil, excellent.
New Snow, most showy white, tall; yet not easily broken by wind.
Cherie, earlier than the majority, profuse, difficult to grow here.
Cahokia, delicate light blue, vigorous, good increase.
Elmohr, outstanding, always popular, long period of bloom.
Chivalry, good ruffled bright blue, long period of bloom.
Blue Rhythm, profuse blue, long period of bloom.

Mrs. J. F. Lincoln, Pueblo, Colo.—

The most outstanding blooms that I have seen anywhere in the past year are:

Techny Chimes which has everything.
Blue Sapphire (Schreiner), Lady Ilse (Smith), Caressa (Buss) are all tops among the light blues.
Mary McClellan, Windsor, Pierre Menard in the dark blues.

Copper Medallion has done better in all gardens in which I've seen it than any other brown.

In the whites I would rate as a generally good and consistent performer—Tranquility. Next was Princess with its airy, outstanding, flaring falls. Cliffs of Dover, Cascadian, Swan Ballet, White Peacock, Spanish Peaks, Wedding Bouquet, and Dreamy all performed beautifully for me. Wayward Wind is still on the top of my "Want List."

May Hall could not outshine the older pinks. Ballerina is always outstanding, and so is Happy Birthday. Pink Chimes was nice, but not outstanding.

We Need Hardy Iris

IDA ST. HELENS, Independence, Kan.

It is encouraging to note that the scientific committee of the AIS is to make a study of the diseases that affect the growth and appearance of iris. It would be more encouraging, at least to growers in our temperamental midwest climate, if some effort were made to restore the hardiness of our Tall Bearded iris, so that they would not be so much like the biblical grass: "Here today and gone tomorrow."

As most of us know, hybridizers, in the early part of the present century, discarded the hardy European diploid species and turned to the tender Asiatic tetraploid species—*I. mesopotamica*, *I. trojana*, and several others, in their search for bigger and better flowers.

Certainly some parts of the United States are admirably suited to these tender irises, such as the west coast area and presumably the northern areas that have such uniformly cold winters that there can be no chance for growth in the rhizomes until spring.

In Kansas and Missouri, except for the northern tier of counties, we never are sure of steady cold, winter weather, cold enough to keep the ground frozen for months. Instead, we have a few weeks of steady cold weather, then a thaw comes, usually of two or three weeks' duration. Plants begin to grow, and bud stalks begin to shoot up. Then the inevitable cold weather follows the thaw. The frozen stalks rot. The rot extends into the rhizomes and by spring has extended to the entire plant. Then we say that the plant was winter-killed, and there the matter rests. But does it need to rest there?

When the old hybridizers turned from the diploids to the tetraploids in their search for finer flowers, sharper colors, and stronger stems, they bred out the old hardiness of the diploids. The fine blue-green foliage of the diploids went also. Now the foliage of the iris plants is frostbitten and ugly and stays so all summer. If the freezing has been very severe, the foliage dies down to the rhizomes and is either a total loss or an ugly plant all summer.

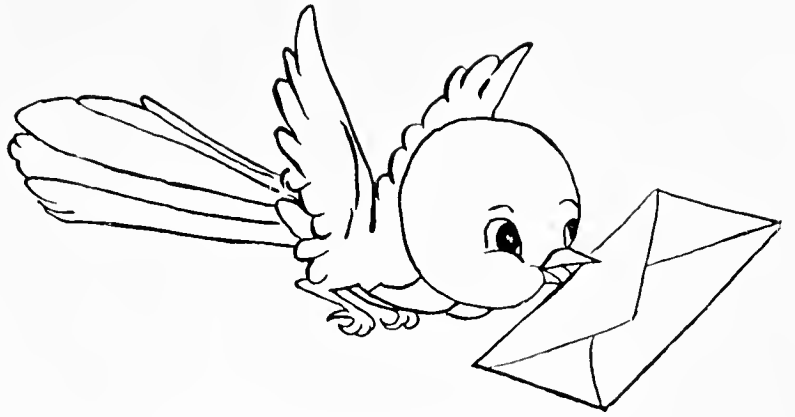
Cannot something be done to restore the old hardiness to the iris? Perhaps if we were to select for breeding only blooms whose plants show the least amount of winter injury, a few generations of line-breeding, with occasional judicious outbreeding, might restore some of the old hardiness and yet not sacrifice the beauty of the flowers.

Or, in desperation, we might find a few of the old diploids left, breed our Asiatics back to them and start all over again, breeding this time for hardiness.

Surely the Scientific Committee would find its work greatly helped by the restoration of healthy foliage and hardy rhizomes.

FLIGHT

BY PEGGY BURKE GREY
NONA B MOTT



INES

Collector's Items Wanted

A correspondent in Illinois has an Award of Merit garden. He is trying to find a couple of old iris. One is My Lady (1925) introduced by McKinney in 1924, and Primrose (1928) introduced by Sturtevant in 1925. If any of you know where they can be found, please let me know. I would like to help him complete his garden. I think it is wonderful when one undertakes projects like this! MABEL HARREL, 2154 Gaylord Dr., Dallas, Texas.

Show Containers

We make a wonderful container to use in staging our iris shows, which is easily made and adds greatly to the effectiveness of any show of long-stemmed flowers. For that matter they could be adapted to the showing of shorter flowers, too. Make a mold that will hold plaster of Paris or other heavy, quick-setting material. Make it round, eight to ten inches in diameter, and approximately an inch thick. Into this sink a length of pipe or other rigid tubing, one inch to an inch and a half in diameter, and about twelve inches in length. This should be done while the material in the mold is still soft, then allow it to set about the pipe. Paint the whole container green for best effect. These will hold water, will not tip, and are not as dangerous as glass containers. They may be made in various sizes and heights if needed. FLORENCE BROWER, Granby, Mo.

The Boise and Magic Valley, Idaho, Iris Societies had a chance to buy several hundred one- and two-quart milk

bottles at bargain prices when a dairy converted to cardboard cartons. We painted them a light dull green inside and they are lovely containers for show specimens. If filled at least half full of water, to add weight, they are not too apt to tip over, and they present a uniform appearance that is both attractive and restful to the eye. Some say that they fill the bottles half full of clean, sharp sand and then add water; the stems go to the bottom of the bottle and the sand adds weight, though if one does get broken, it's a bit harder to clean up than just plain water. WILMA VALLETTE, Declo, Idaho.

Arrangement Themes

Many of the ideas and themes using ceramics for high-style arrangements that have been successfully made with other flowers can be adapted when using iris for the dominant flower. I got a good idea from an arrangement I saw at the Utah State Fair for our show classification, Interpretation of the Iris Name. On the Choir Boy theme, I used an appropriate ceramic, set on an irregular, natural flagstone, backed with a piece of weathered wood resembling a pipe-organ. Choir Boy iris was used in a simple line arrangement with the holder and small receptacle disguised with sphagnum moss. Many iris names are suggestive and could be worked into a clever arrangement using ceramics or other props as part of the design. Perhaps other shows might like to do something similar. These arrangements interpreting the name of an iris are conversation pieces at the show and very popular with

the beginner and junior exhibitors who love to use ceramics. This gives them the opportunity to be as ridiculous as they please as long as they are amusing or clever. Port Wine or The Knockout might be arranged appropriately in liquor bottles; a "jug of wine, crust of bread, And Thou" arranged on a cheese-cutting board; or a single bloom of Easter Bonnet and tiny sprigs of other flowers tucked between the falls would be a charming hat for one of those coy ladies with a hole in her head. Many other names such as Big Ute, Palomino, Ballet Dancer, Firecracker, Happy Birthday, Cinnamon Toast, and so forth might also be used. CRESCENT DERU, Ogden, Utah.

Reports on Gibberelic Acid

I have quite a few seedlings up at a ratio of about five to two (five soaked in Gibrel to two plain). I seem to get more faith in it all the time. CINDY ERWIN, Levittown, Pa.

I soaked amoena seed in gibberellic acid last fall and had germination in three weeks. They kept coming up all winter, and after I put the flat into the hotbed in mid-January the seedlings popped up all over! For me a heating cable alone in the frames gives quicker germination but no better, but with gibberellin one gets both speed and high percentage of germination. MALVINA SUITER, Caldwell, Ida.

In experimenting with Gibrel solution, I sprayed two rows of seedlings early last summer and left two rows untreated. The treated seedlings grew twice as large and made more increase. Early treatment, as soon as the seedlings appeared, was much more effective than later spraying. But be sure to feed the seedlings regularly as the directions call for. I also believe that spraying Ethel Peckham twice during the summer was responsible for the repeated bloomstalks she put out in September. This spraying, however, doesn't alter her normal re-blooming tendencies, and unless one wants blooms for exhibition, it isn't of value in a breeding program. PEGGY PENDELL, St. Maries, Ida.

I got some information about the effect of gibberellic acid from a horticulturalist at the West Virginia University. It was discouraging. The plant increases

in size but not in volume. It is a matter of cell wall thinning and stretching. Premature bloom does result. That's about the total of it, but it remains to be seen how this can be applied to our iris work. I have read of others getting germination in a matter of hours after soaking ripe seeds in gibberellic acid. SARAH REED, Barboursville, W. Va.

Seed Bed Ideas

Did you ever try keeping your seed bed wet for a week or so before the time the seeds should begin to sprout? Here, if the spring is dry, I begin to water the seed bed, sometime between the middle of March and the first of April, depending on the season, and usually have almost complete germination. IDA ST. HELENS, Kansas.

I took two boards (6' x 12" x 2") and 3' x 12" x 2") and made a bottomless box and set it on the ground and filled it with coarse building sand (not the fine beach sand). I soaked it several times with a nutrient solution, letting it dry between times so that the nutrient salts were mixed in the sand. Then I plant the seed and mark it as in any seed bed. Water with a fine spray and leave open all winter. When the weather warms up in the spring, I lay a sheet of clear plastic directly on the sand. As the seedlings sprout, I place a stick 1½" x 2" high beside each to raise the plastic in that spot but keep the rest covered tight. Most people steer clear of sand due to its drying out so fast. But this is not true if plastic is used. If I get a long dry spell, and see it start to dry out, I spray lightly. This moisture has the nutrient in it from the previous solution, and the plants grow on it fine without constant care. I rarely open it up except to place a stick beside a new seedling. When they get about two inches high, I take them out and place them in a bed of their own in the garden. I use this method for other plants, too, and find it very good and less care. MRS. VICTOR ERWIN, Levittown, Pa.

I get my best germination by harvesting mature seed when the pods begin to crack open, and store them in glassine envelopes in the attic where it is so hot and dry that mold won't develop. In late fall I level off a place in the garden, put about two inches of peat moss over

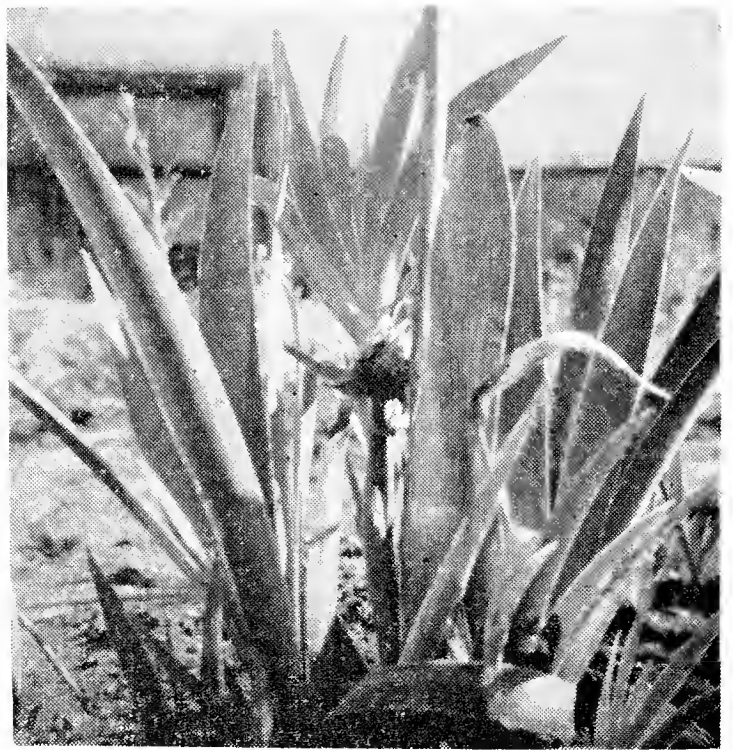
it and plant the seeds in rows about an inch apart in the moss, very shallow so that they're barely covered. Next I spread a mulch of prairie hay (not straw which has too much volunteer grain left in it), removing it in late March. By mid-April seedlings have begun to appear, which I transplant into the blooming row when they are one to three inches high. If there is room, rows are left for second year germination. I think the reason I get such good germination, 75 to 100 per cent, is that the peat moss concentrates the moisture at the surface so the seeds enter the freezing period in a high-moisture state while the mulch keeps the top layer frozen solid and prevents heaving until it is removed, so that both moisture and freezing together are the important key in germination. JUSTIN HARPER, Moline, Ill.

A word of warning on raised beds! Don't make them too wide. I built one last year about six feet wide which didn't work. The water in the middle can't get away if the bed is too wide. I use beds about three feet wide, and raised about four inches without any retainer and they work fine. LEE EBERHARDT, Springfield, Ohio.

The suggestion of shifting iris to heavier or lighter soils, or by digging them in August and enforcing dormancy by drying them out in the shade until September, and then replanting has worked very nicely for me up here in the terrific heat. The rhizomes seem to have a rest, and when you plant them out in late August or September, they take off to a new start. COLLIE TERRELL, Wasco, Calif.

Trimming and Transplanting

I very often use a big knife something like a machete to trim the plants before I plant them, and clip both tops and bottoms. Often less than an inch of roots are left. The reason? With as many as I transplant each year and with soil as heavy as ours, it would take forever to dig a hole large enough to accommodate the root system of each rhizome. I just scoot along the rows, grab an iris with no roots, and jam it into the ground just deep enough to hold it upright, then water well. If the weather is real hot, sometimes the tops get to looking rather sad at first, but it doesn't



take them long to start growing. The next spring you never can tell the difference; they do just as well as the ones transplanted with roots. KEITH KEPPEL, Stockton, Calif.

Proliferation

This picture of proliferation was the first one seen among many thousands of iris seedlings. When the picture was taken in August, 1957, the plant growing on the stem of the mother plant had three increases and roots $\frac{1}{4}$ to 1" long. By September when I cut it free from the mother, leaving about an inch of the old stalk on which it was growing, it was 8" tall. In the hope that I had a bud sport or that the new plant might show some mutation, I planted it in the usual manner right by the mother plant for comparison. When it bloomed this year, it proved to be the same breed of dog as its mother, proving that the proliferation here was a plain ease of vegetative reproduction rather than an aberration. Some "hems" like Queen of Gonzales and Sally O'Neal are very prone to propagate by proliferation. Tell Muhlenstein says that the best way to handle these new plants if they have no roots is to strip off the outer leaf and suspend it in water until the roots form, after which they may be planted in the usual way. CRESCENT DERU, Ogden, Utah.

Aril Notes

If you live where there are late frosts, don't shelter your Arils too much. I grew mine south of the house and they budded so early they always were

nipped; now I have them in the most northern corner of the yard where they get the full blast of winter winds, and they do just fine. The bed is quite sandy as I took out most of the clay and put in sand for good drainage, with just enough clay left to give them the alkalinity they like. LYS HOUSLEY, Denver, Col.

The first thing I learned about hybridizing Oncos is that the species are almost self-sterile. The best breeding day was the second day a flower was open, in the morning before the dew was entirely gone. I found flowers would not self in the same species, but two forms of the same species will cross, and the different species are very fertile together. GILBERT CLARK, Encinitas, Calif.

When I used the pollen of *I. lortetii* on Lady Mohr, I got three pods out of three tries, but with the grand total of three seeds which never came up! Have also had what appeared to be good pods from *Regeliocyclus* and *Regelia* crosses but with no seed whatsoever. KEITH KEPPEL, Stockton, Calif.

I have long contended that the introduction of Aril blood into the breeding of better remontant iris will prove highly beneficial, and I am working along this line at present. Echo Valley is a good one carrying some Onco blood, the pedigree being Ormohr x Wabash, and it is a lovely remontant plicata, hardly what one would expect from the cross. Master Neil also carries Onco blood from William Mohr, its pod parent, and it too is a plicata which reblooms. Persian Pattern is another Oncobred, which should rebloom in some areas, so this idea of introducing the Aril bloodlines into remontants is not too far off the beam. DAVID FLESH, Jefferson, Kansas.

City Gardeners

Our city lot is about the regular size and the back yard is only 25 by 65 feet, so I must limit myself to a choice few. I have chosen the red tones. There are so many things I would like to add to the present reds, such as broader falls, fragrance, better increase, more substance, flaring falls with a pleasing ruffling, and above all better coloring. HENRY LARSEN, San Francisco, Calif.

My sister and I have a large city lot and still plenty of room for iris. The

soil needs constant building up because it has been used for years. We use compost. We make it of weeds, lawn trimmings, and leaves. We have several fruit trees. We spread this stuff in thick layers, then give it as much wood ashes as we can get and a good sprinkling of blood meal. We add layer after layer and wet it down. We try to get it turned at least twice. We plant on a ridge and water in a ditch. We use bone meal when we plant. We keep the weeds down. We have very little rot but lots of leaf spot. We do not have too many pests as we have a spray service. HAZEL STEWART, San Jose, Calif.

Tips on Feeding Iris

I often apply fish emulsion fertilizer sprayed directly on the foliage all summer with good results. I am told it is fine to use when transplanting seedlings too. HUBERT DURKIN, Louisville, Ky.

If you can get processed sewage sludge, do so. It is free in some places, by the truckload, and it is ideal, except for being a bit short on nitrogen. It helps condition the soil as it is light, spongy and odorless, and looks like rich black soil, only lighter in weight. It will lighten very heavy soil and loosen clay, while it holds water in sandy soil, and in general, seems to be a cure-all. Iris do very well in soil where it has been used, plus a little sand in very heavy soils perhaps. PAUL HORN, Ft. Worth, Texas.

Have you heard of using dry, powdered milk as a special food on iris? Instructions vary for its use, from using it as you would bone meal, to diluting it according to directions, and then using this mixture at the rate of one cup of milk to one quart of water. I see no reason why fresh milk could not be used instead of powdered. Farmers often use fresh milk around watermelon plants when they want exhibition-sized melons. The only thing I can think of is that the fresh milk might create a sour-milk odor that would be objectionable, which is something that could be avoided with the powdered milk. Ample watering would probably overcome this. PHYLLIS HOLTZ, Kellogg, Ida.

Belief in milk feeding varies. Some say "no"; some say "yes." However, quoting from a book *Virus in the Cell*, by J. Gordon Cook, Fellow of the Royal

Institute of Chemists, published by the Dial Press, 1957, New York: "Many natural substances have virus-inhibiting activity. They are found in the leaves of many plants, including sweet William, carnations, and in many fungi. Tissue fluids such as blood, fruit juices, and milk contain proteins that are able to block the efforts of viruses to multiply." Further: "Some substances have been used experimentally as anti-virus sprays. Mosaic of tomatoes can be kept down by spraying the leaves of plants with milk. Infection decreased from 100% to 5%." However, the book points out in another place that aphid-transmitted viruses are not inhibited in this manner by surface sprays. Aphids are known as one agent in transmitting iris virus disease. EDWIN RUNDLETT, Staten Island, New York.

Hybridizer's Heaven

Don't be afraid to try hybridizing. As fun, it's the most! Oh, yes, it has its frustrations, but if you get even one perfectly beautiful creation that is a little different from the others, you get a thrill that is worth all your labors. Of course, if you start, you're sunk and will never be quite normal again. And as a hobby, it's likely to get out of control and wind up riding you instead of you riding it . . . but I wouldn't give it up for anything. GEORGIA KASTER, Belmont, Calif.

Working for New Intermediates

There are very pretty things coming from (Tall Bearded x pumila) X Tall, such as Cloud Fluff and First Lilac and this line of homologous iris should give fertility, pair amongst themselves, and improve. One thing is sure, this four-to-one Tall-pumila ratio seems very hardy for my part of the country while others seem subject to disease and appear to winter-damage. I have lost several of my (Tall x balkana) X (Tall, as the center just rotted out. WILMA GREENLEE, Chrisman, Ill.

I feel that sibbing this kind of hybrid (and others) is easier than selfing, but which is better would depend upon your objective. Sister seedlings are not exactly the same genetically, so bred together would give more variation than would selfing. Selfing is better when you want to determine what qualities were in the pod parent's ancestry. Sib x sib has

brought some wonderful things. EDWIN RUNDLETT, Staten Island, N. Y.

Don't lay any bets on those new types of 44-chromosome Intermediates being sterile. I'm betting they will be much more fertile than the old types of 44-chromosome Intermediates (Tall Bearded x chamaeiris Dwarf). I have a cross of diploid plicata (Midwest x *I. bosniaca*) that gave odd seedlings, and I will try to intercross them. EARL ROBERTS, Indianapolis, Ind.

Except for the chamaeiris, few small iris give much bloom here in the Southwest. I have watched so patiently for Cretica, Carpathia, Sulina, a host of pumila seedlings, and Thisbe to put forth buds. It looks to me as if it will be another year without the blooms—the fourth. I will just have to work with pollen sent from our northern and eastern friends. RUBY STRAWN, Arlington, Texas.

Usually the descendants of blue pumilas refuse to bloom here, such as Fairy Flax. I have several Lilliputs from Sulina pollen, shipped in five years ago, and not a bloom yet. The Tall x pumila seedlings which do bloom for us are our only salvation, working with these until we produce a line that does especially well in the Southwest. The more Tall blood we insert, the better the performance. Blue Asterisk, for instance, does quite well. New Snow x Green Spot produced some beautiful whites 18 to 24 inches high and in perfect balance. PAUL HORN, Ft. Worth, Texas.

Small Iris Favorites

Bee Warburton's Brassie has ideal plant habit with flowers on good stems above the foliage, spathes not too large; the flower could be a wee bit larger for the height; flower form is very good; color, an interesting brassy yellow.

Lilli-White, excellent flower shape and substance; color pure white, ruffled; good plant habit; flower above foliage. It did have one bad feature which may correct itself on a two-year plant: of the four stems in the plant on a one-year plant, each had only a single flower. For this Standard Dwarf Bearded group I think this is particularly bad as it cuts down on the length of the season and the number of flowers too much, and this is one of the fine features of this class of

Lilliput hybrids. I hope it corrects this in future flowering; it is so perfect otherwise.

The best seedlings again this year were Earl Roberts' Daneing Bee and Geddes Douglas' CH 5600. Dancing Bee has pale lemon standards, pastel lavender-blue falls. It has fine plant habit, flowers taller than the foliage by quite a bit, floriferous and new in color combination. It had three fans last year and all of them bloomed, so we feared for increase. When it started to bloom this spring it had twenty-three fans and twelve bloomstalks. We think CH 5600 is the best of the Douglas varieties. It is a very wide, full flower, with flaring falls, domed standards; flowers at the top of the foliage; the color is rose fuschia, bright, with reticulations in white around the beard, which really spark it up. This one was the first Lilliput to bloom and was still going strong near the end of the season.

Brownie was very good. It is ecru with deeper veining and brown flush through the falls. The standards open just a little to show light violet style-arms. It has very wide parts. On a second-year clump every fan had a bloom stalk on it. BEN HAGER, Modesto, Calif.

In its home garden in Massachusetts, Brassie set out in a row was almost blinding. It is well named. Another choice one was a little Great Lakes, named Blue Denim (BC 300). There were many nice blues; one has feathered style-arms with teal stripes! These were among the outstanding seedlings in Bee Warburton's garden during the Median Test Garden meeting. RUTH STEPHENSON, New Haven, Conn.

Some Top Favorites

We have had a rather good season here in Phoenix. With me the Spurias paid off, as a whole, better than the Tall Bearded. They seem to take my alkali soil and water. Blue Zephyr is one of the prettiest of the Spurias. It is a self of light powder blue and the last to bloom, is a good grower and profuse bloomer. Premier is a nice purple that so far has not shown any signs of mosaic, as does Lord Wolsey. Blue Pinafore, Dutch Defiance, and Color Guard are all nice blue combinations. Mt. Whitney is

a huge white; Larksong, a yellow and white combination; Golden Nugget and Sunny Day, good yellows; Bronze Butterfly and Fifth Symphony, good browns; and of course you can't beat Wadi Zem Zem for a cream or pale yellow. So, if you do not have any Spurias in your garden, I would suggest you try some for a real thrill. WILLIAM J. JOHNSON, Phoenix, Ariz.

Bill Schortman's Polka Time is the smoothest and most-ruffled iris I have seen. It's got everything! It is a beautiful velvety purple. Frost and Flame is a very plain iris but the best white-with tangerine-beard that I have seen. I was a little disappointed in White Bouquet. It is too large. Raven Country is a good black but no increase at all. Black Taffeta is still the best-formed black and Black Hills, the tallest. MARY ELLEN KNOPF, Campbell, Calif.

One of the first to bloom here was Cliff Benson's Night Patrol, a flaring violet-blue, medium height, which is one of the few in this class here, to hold its bloom for over a day. It has many blooms per stalk and lasts better than any in this class.

My favorite whites were: Tranquility; Cliffs of Dover; Nashoba; Winterset; Oyster Pearl; and the ruffled Curl'd Cloud, which I understand will be introduced in 1959. The early whites sulked this year because their bloom was nipped by a late cold winter. However, just because of this one bad year, I will not pitch out such favorites as Cascadian, Snow Goddess, and White Prairies. One of the finest of the whites here is Dorothy Palmer's Snow Ballet, which had eight bloomstalks on a two-year clump.

There were many fine ones in the blue field: South Pacific, Sierra Skies, Regina Maria, Blue Sapphire, Blue Cliff, and Beth Corey were among the fine doers here. Both the white and blue field have reached the top as to variety of form, and stamina. Many new ones are being introduced that are just as good. However, except for the attainment of true blue, it will be hard to improve the quality we now have.

I also note that in the pink family, except possibly the blends, most of the new introductions are not superior to the ones we now have. Happy Birthday,

May Hall, Temple Bells, Enchantress, Annette (all Hall iris), and Mission Rose all performed well; and the pink blends, Frances Kent, Lula Marguerite, and Yesteryear all did well in my garden.

To mention a few good yellows here: Techny Chimes, Starfire, Golden Sunshine, Solid Gold, Foxfire, and the outstanding new one that I saw, Opal Brown's Golden Valley, with its broad hafts and beautiful form.

Of all the frilly things from Gordon Plough, I liked Butterscotch Kiss best. Here, it is a wide-hafted cream and very lacy. Some of his others had narrow hafts.

I have reached the point where I no longer want an iris merely because it is new. It should be either better or different. JAKE SCHARFF, Memphis, Tenn.

Angela Mia (Noyd) on a one-year plant gave us a good, full, well-rounded, quite-ruffled flower—not a white white—but soft with a slight creamy influence when placed by a real white such as Uintah (Crosby), which is quite white, not as ruffled, but of good form. Neither Raven Country nor Total Eclipse would favor us with blooms on one-year plants, but as Raven Country is a slow increaser, was glad it is waiting. The flowers are well worth waiting for.

Dotted Swiss (Sass) is possibly an improved Blue Shimmer. The blue is clear and clean. Elizabeth Noble is not a color break, but it is said that it will bloom better than the previous amoenas. The colorings are about like the others, with a slight difference in shading of fall petals.

Frilly Fringes is one that is really worthwhile buying, if you like lacy ones. We all enjoyed this one very much, and it has good-sized flowers with well-placed branching.

Lantana is lovely when opening, but in our hot sun it will fade. If you get it, plant it where it will be protected from afternoon sun.

Mission Starlite is another of those exotic light blues in the Blue Sapphire range. This I liked very much, smooth and didn't fade.

Carmela was putting on a real show; everyone admired this with its Chantilly edging. Was disappointed that Butterscotch Kiss did not bloom for us as we

wanted to compare the laciness and coloring of these two.

Both Helen McCaughey and Purple Haven have that smooth texture that is so very appealing. So far, neither one comes up on more than 32" stalks for us, but if we can leave them for two-year plants, am sure that we shall get better stalks. Branching is good, and there are always several flowers out on a stalk.

It is said that Golden Alps is expected to get the English Dykes Medal, and from the performance it gave us on a two-year clump, it will be right up there in the competition. The standards are almost white, with falls deep yellow.

Lady Rogers is a "must have" if you like light blues. 'Lasses Taffy is the loveliest of warm rich tans. It gives so much to the garden's color needs. Queen's Lace, another of the lacy-edged ones, always gives good bloom for us, so soft and sweet.

Techny Chimes, with that orange-tangerine beard, is a showy light bright yellow. Crystal was lovely and smooth in its delicate ice-blue coloring everywhere we planted it in the garden, which was in at least four or five places. This to me is the real test of a good iris, when it will "give" everywhere planted, sufficiently to make you stop and love it for its near-perfection every time. DAVID LYON, Van Nuys, Calif.

Our climate is cool, with considerable fog, not especially good for iris growing. We began growing iris when Frieda Mohr and Santa Clara were popular. Treasure Island was the first introduction we bought, and it did very well here on the northwestern coast of California. From the first Fancywork on March 30, to the last Bronze Symphony on June 6, it's awfully exciting around here. Each year I keep a record of bloom time, and then when I transplant I like to make a bed of the earliest, and let the color sweep across the garden. Of course, with new ones I have to wait to see the bloom.

This year Heigho made a most magnificent display with a great wide sea of blue color. Cascadian is one of our best whites, blooms early and is tall. Lady Diana, which I don't find in any catalogs, blooms profusely, a good lilac color. Palomino bloomed the best it

ever has, this year, and we had an extra amount of rain this year, too. Frosty is a lovely rosy lavender plicata. Caroline Jane was perfect in a blue-on-white plicata. Rosy Veil is a very dainty flower, new to us this year and very likeable. It has less color than Pink Accent, which is a prolific bloomer for us. Figurine is most charming and might be pretty planted with the lovely Green Mohr, one of my favorites. Cloth of Gold is a good clear yellow, very dependable. So Sweet is somewhat like Blue Sapphire and is very good. Mallow Marvel just outdid itself this year with a marvelous show of pink bloom. King's Jester is a very striking "plic," bold purple with white stripes on the falls. Stop is an excellent red, a very good bloomer for us. Deep Black was a stand-out, probably our best dark. MINETTA HAM, Arcata, Calif.

The Iris that Bloom in the Fall

Our letters point out very clearly that remontant habits of irises, and other irises as well, take every advantage of light, warmth, food, shelter, and weather in order to increase their kind. To be successful in getting irises to bloom again in the fall, it is apparent that we must do considerable experimentation and pool the results with our neighbors. The successes with remontants of those who live in warm, favorable climates can be helpful to those of us who live where the weather is more rigorous. For instance, it appears to me that an iris that reblooms *anywhere* may prove valuable to all of us *everywhere* even when we cannot induce it to rebloom. The hybridizers among us can use it as parent stock in the hope that its reblooming tendencies may be transmitted to an offspring which may be hardy enough to best our cold climates. For instance, there was a beautiful yellow seedling on display on the occasion of our Empire State Iris Society's annual dinner, the pod parent of which was Prairie Sunset. This seedling was produced and grown in a climate here in New York state which commonly causes temperatures to dip to twenty below zero. DR. IRWIN A. CONROE, Altamont, N. Y.

One should never decide that an iris is reliably remontant just because it re-

blooms in the fall after being transplanted or acquired in spring or early summer. Many an iris will do that, yet be a complete dud as a remontant in future years. Give it one winter in its new home before crediting it with the trait, even if praised to the skies as a remontant in a warmer state. EDWIN RUNDLETT, New York.

My thoughts concerning remontancy are that it could very likely be a gene, very recessive, carrying the tendency (like the susceptibility to tuberculosis in humans), but that soil, light, and temperature (environment) must co-operate for the iris to perform. CINDY ERWIN, Levittown, Pa.

In my seedling patch last year there was one iris that came out before the rest. Edwin Rundlett said that it might also bloom in the fall. It shot up three different bloomstalks in the fall. The color was wine purple. I think it was a pretty good one, so I have a start of my own to work on. There were three others that bloomed in the fall. These were all yellow. I see the buds coming out on two of them, so they will bloom this spring. CLEM REEVES, JR., West Cape May, New Jersey.

I believe the difference in light hours will have a bearing on remontants for earlier bloom. A friend lives near a large shopping center and her yard is illuminated by lights all the time. Her iris bloom earlier than mine. While her iris are in peak of bloom, mine are just getting started well. She had to cut and refrigerate her buds for the iris show. I can pick from the yard. The remontants bloom earlier and for longer periods than mine. The frost affects mine more quickly than hers. We have compared with others around here, but none are as early as hers, so the lights are the only reason we can find to explain this. MARGARET BURNETT, California.

I have an ash tree twenty feet tall that shades ten feet of a row of October Shadows. Fall bloom always starts at the sunny end of the row and goes toward the shaded end. Shade lasts only a few hours in the morning. Another clump is near a stone wall that shades it for a

few hours in the morning, and bloom is later on these fall bloomers.

In breeding I try for early fall bloom first and for other qualities later. Here in Southeastern Massachusetts an iris has to bloom in August or September to be any good. DR. G. PERCY BROWN, Barre, Mass.

I have noted that the climate at Palmdale encourages every bit of bloom in a plant, causing many to bloom out and die. Royal Band threw out dozens and dozens of blooms on the clump and bloomed itself to death. Probably if we had cut most of the blooms off in the spring, it might have rebloomed. CAL BOSTWICK, Palmdale, Calif.

Writers have reported that in rainy summers there is more fall blooming than in years when the summers are dry. That points to summer watering as a requirement. I go one step further and put a good dose of chemical fertilizer such as 5-10-10 or Vigaro or Agrico about the plants, a handful per plant, after the spring blooming period, and water it in. Some use Ra-Pid-Gro through the hose to accomplish this same thing. Another help is to remove bloom stalks in the spring to conserve vigor for fall. Keep weeds under control and also aphids. EDWIN RUNDLETT, New York.

The only remontants I have that can be relied upon to bloom in spring and fall are Eleanor Roosevelt and Sangreal. I also have Lady Mohr, Carabella, Joseph's Mantle, none of which have ever bloomed in the spring, much less in the fall. JOAN POLLARD, Tulsa, Okla.

I don't remember September Skies missing some bloom in its season in the eight years I've had it. It is a beautiful deep purple, has a light blue-tipped beard and is an Intermediate. In November its stalks were short, some near the top of the foliage. ROSE FLANAGAN, Louisiana.

We have already learned that some of our iris varieties here will repeat their bloom periods in the fall, while they will not do so in more northern latitudes, nor in areas of insufficient rainfall, the latter requiring the use of irrigating and special feeding, if repeat blooms are to

result. The earliest repeat bloomers, which produce their second bloomstalks anywhere from July through October, will probably have the best chances of proving adaptable to more northern areas, while the so-called late fall and winter bloomers will be useful only in the very mild climate areas. DAVID FLESH, Jefferson, Texas.

A performance chart is what I think will help everyone to know what different iris will do in our climate zone. If they don't bloom as they should, let it be known and it will save someone else from trying them out. Z. G. "BEN" BENSON, Wichita Falls, Tex.

Since my experience with remontants has been limited, I made a few inquiries as to what blooms here. The following bloomed for Mrs. E. R. Fox with reasonable regularity: Autumn King, Autumn King, Jr., Black Magic, Dorothy Kay (Williamson), Ultra, October Opera, October Blaze, Golden Cataract, Olive White, Autumn Queen, Autumn Surprise, and Sally Ann. The latter is Kenneth Smith's and is considered better than many of the older ones. Eleanor Roosevelt has bloomed constantly for me. Joseph's Mantle blooms with reasonable assurance in this area. Another that blooms throughout the fall season is Lieut. de Chavagnac, a ten-inch deep violet Dwarf Bearded. EWELL PIT-TARD, Memphis, Tenn.

In the latest *British Iris Society Yearbook* is an article entitled "Some Newer Rebloomers," by H. Castle Fletcher. Lugano (Cayeux) is listed as a nice white rebloomer. Arabi Pasha is mentioned as an ancestor of remontants, and it also says that Happy Birthday carries the tendency. Betty Gould is also mentioned.

Golden Eagle does carry the remontancy tendency and transmits it to seedlings, also is a producer of tangerine-bearded pinks when mated with others having the same beards.

I. balkana rebloomed for me and for a friend of mine last fall. The chromosome count of this one, when available, might prove this one to be a key to a strain of remontant dwarfs. EDWIN RUNDLETT, New York.

IN MEMORIAM—WILLIAM MILES

MRS. WILLIAM McCANN, Canada

Deeply shocked were his many friends and members of the Canadian Iris Society (Region 16) to hear of the sudden passing of William Miles on March 7, 1958, at his home, Surreyhurst Farm, Ingersoll, Ontario, Canada. One of the most prominent flower lovers and hybridizers of iris in Canada, Mr. Miles was born February 12, 1892 at Merstham, Surrey, England. A student of the Royal Horticultural Society, he entered Wisley in 1907. While studying there he frequently met Mr. W. R. Dykes, and from him caught his great enthusiasm for irises of all kinds. Some forty-six years ago he came to Canada with an ambition to become a dairy farmer. He took a course at the Ontario Agriculture College and then settled on a farm in Oxford County, living there and building up a fine herd of Jersey cattle which has been his livelihood ever since. In between times he worked as a hybridist for the H. H. Groff Gardens at Simcoe, Ontario, and in 1927 began introducing his own Intermediate and Tall Bearded iris. Some of his best, and most popular irises growing in Canadian and American gardens are: City of Stratford, Vice Regal, Vanda, Elizabeth of England, Ballet-in-Blue, and Mindemoya. Mr. Miles, a born naturalist, was greatly interested in trees, shrubs, and other plants, especially daffodils (*Narcissi*) and rare spring bulbs of which he had a fine collection. His unique and unusual hobby, the study of dragonflies, was only one of his individualistic interests, apart from his great fondness for domestic pets. A fluent speaker, his wit and humour, both keen and original, added flavor to his scientific talks. He was the first Canadian recipient of the Foster Memorial Plaque (1953) and in 1937 had been awarded the Silver Medal and Diploma of Merit by the Ontario Horticultural Association for his outstanding work in hybridizing iris. He was R V P of Region 16, Canada, some twenty years ago, and served as honorary judge. At the time of his death he held the office as First Vice-President of the Canadian Iris Society, having served on the board of directors for many years.

Besides his sorrowing wife, Ruby, his daughter, Katherine, and one grandson, Billy, he leaves a host of friends to mourn his passing. He left with everyone who knew him, something, to remember him by.

IN MEMORIAM—MRS. J. F. THOMPSON

Mrs. J. F. Thompson, long-time member of the Duluth Peony and Iris Society, passed away May 29, 1958, following a very brief illness.

Mrs. Thompson was born in Benton County, Indiana. She came to Duluth in 1910. We believe she enjoyed the reputation of being one of the outstanding irisarians in this area. At the time of her death, she was secretary of the Duluth Peony and Iris Society. A Vice-President and member of the Board of Directors of the Minnesota State Horticultural Society, she held the award of Merit for outstanding achievement in flower garden work.

DWARF IRIS SOCIETY HOLDS ANNUAL MEETING

The seventh annual meeting of the Dwarf Iris Society, Northwestern Group, was held in Seattle, Washington, April 12-13, 1958, with Mrs. T. G. Powell as Chairman. Thirty-three members attended representing Idaho, Oregon, and Washington. Test Garden browsing occupied the early part of the first day, followed by a discussion on "The Symposium Dwarfs—Yesterday-Today-Tomorrow." Winner of the Popularity prize was Bennett C. Jones' seedling, #43-1, a very clean, flaring white with a bright blue spot on the falls.

Theme of the evening banquet meeting was "This is Our Life," a series of reports on the members' work and interest in the dwarfs. Members participating were Hattie Hubbard, Leona Mahood, Donna Simonson, Orpha Salsman, Ronald Beattie, Sylvia Powell, Alta Brown, Roy Davidson, Alexia Gerberg, and Helen Tutmark. A business report was given by Leona Mahood, slides were shown, followed by a very successful plant auction conducted by Herbert Dickson.

Sunday's meeting was given over to a tour of the gardens of W. T. Moir, Herbert Dickson, and Roy Davidson. A fine luncheon was served at the Davidson garden; also further discussion of Symposium Dwarfs was held. Thus ended another successful meeting of this enthusiastic group.

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WILSON COLOUR CHART (Two vols.), Royal Horticultural Society \$15.00 pp. Supply limited.

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Post Script

In Bulletin 99, November, 1945, Mr. Frederick W. Cassebeer wrote, "This number of the Bulletin is in the nature of a swan song. . . . Beginning with Bulletin 100 the reins of editorship will again be in the hands of Mr. Robert S. Sturtevant . . . (who will) be assisted by Mr. Geddes Douglas." Thus began my association with the Bulletin and this arrangement remained in effect for three issues when Mr. Sturtevant was forced to curtail his iris work. The Board of Directors asked me to take over the Editorship which I did, Mr. Sturtevant becoming the assistant.

Bulletin 104 contained the name of a new enthusiast, Mr. Sam Y. Caldwell, who was named "Photographic Editor." This set up continued until January, 1948 when Mr. Caldwell was named to the combined job of Executive Secretary and Editor. I reverted to the job of Assistant Editor and this association continued until Bulletin 117, April 1950, when Sam began his radio career and resigned his AIS position, and again I became editor by default. Since that time I have been responsible for the production of this worthy publication and all of this is by way of leading up to the question of editorial style. During this period beginning in 1945 there have been several changes in the make-up of the Bulletin and the policies governing its style.

To say that Bob Sturtevant was an individualist is to put it mildly. He was extremely different in his dress, his speech, his ideas, and in fact, in his whole approach to life. He carried this tendency over into the style of the Bulletin. Bob's point was that the Bulletin was a magazine published for a group of amateurs. Ergo, its get-up should be simple, its pages readable, and the printed page should be free from any editorial gimmicks that might interfere with this. As samples of his editorial policy, he cut punctuation to a minimum, eliminated italics when referring to species, etc., and referred to varieties with an initial capital letter only.

Sam Caldwell and I adopted a middle of the road policy. In the main body of the material making up the Bulletin we retained a modified version of Mr. Sturtevant's ideas, but in purely scientific articles we let the author determine his own style.

Currently, the Bulletin is most fortunate in having two relatively new workers, Associate Editors Peg Grey and Adelaide Peterson. Mr. Grey is our material scout and prepares "Flight Lines." Mrs. Peterson reads copy and it is at her insistence that we have standardized our style. We are indebted to Doctors Randolph and Lawrence for having furnished us with the latest thinking along these lines and from now on we go by the book.

However, there are a few items that seemed to justify a slight variance. For twelve years now we have written varietal names in caps and lower case, as "Amethyst Flame," and not "AMETHYST FLAME." It will be "AIS" and not "A.I.S." Since these are typically Bulletinish we will keep them so.

We hope you will look at this and future Bulletins with a critical eye and give us your comments. Only thus can we better them.

—GEDDES DOUGLAS

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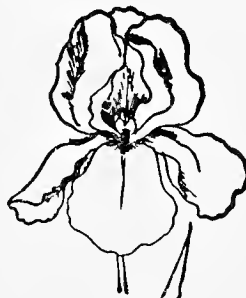
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